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**RECURRENCE AND COMPLICATIONS OF
GENITAL PROLAPSUS**

MONOGRAPH

Samarkand-2023

B.B. Negmadjanov., H.Sh. Shavkatov. Z.T. Egamkulov « Recurrence and complications of genital prolapsus» (Monograph)-Samarkand-2023.

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Abstract

In the monograph, the epidemiology of genital prolapse in women, which is one of the urgent problems facing obstetricians and gynecologists today, the frequency of occurrence, clinic and management tactics, the complications that occur as a result of genital prolapse, the methods of their treatment and the recurrences and causes after surgical practice, and the socio-economic status of women. The nature of the disease in life, measures to prevent it are described in detail.

The information provided by the authors is based on evidence-based medicine as well as the authors' own experience.

This monograph is intended for obstetricians and gynecologists, doctors working in the field of reproductive health, and postgraduate residents, and is of not only scientific, but also practical interest.

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INTRODUCTION

The problems of genital prolapse in women in the world are widespread, early manifestation of clinical symptoms, and in many cases, recurrence of the disease even after surgery, remain relevant to this day. According to the modern literature, "... among gynecological diseases, prolapse of genital organs makes up from 28% to 39%, and 15% need surgical treatment, especially high rates of the disease are observed in women over 50 years old...". At the moment, choosing the most optimal surgical method of treatment, determining the optimal time of their use, and evaluating the results of treatment, taking into account the fact that genital prolapse is "young", the prevalence of severe forms of the disease and the involvement of adjacent organs in the process, is a problem that needs to be solved in gynecology practice. A series of scientific research aimed at identifying the risk factors that cause complications of the genital organs caused by the violation of the normal anatomy and biocenosis of the vagina due to the urogenital and anorectal dysfunction observed in the last stages of prolapse of the genital organs in women today, their early diagnosis, the development and prevention of the most optimal treatment methods investigations are underway. In this regard, it is important to carry out scientific research aimed at developing the most optimal surgical treatment method based on the full realization of reproductive, sexual and social functions of women with genital prolapse. Currently, in our country, the organization of a health care system that ensures a radical increase in the quality, efficiency and popularity of medical assistance to the population, including taking women with genital prolapse and providing them with specialized medical services, comprehensive measures aimed at early diagnosis of diseases and reducing their complications, have been increased. certain positive results are being achieved. In this regard, tasks such as "...expanding the use of quality medical services for mothers and children, providing them with specialized and high-tech medical care, and wider implementation of comprehensive measures to reduce infant and child mortality" are defined. Based on these tasks, determining the recurrence rate of the disease in women with genital prolapse, using local tissues in the treatment of prolapse, developing an improved surgical practice and evaluating its effectiveness will allow to reduce the rate of

disability caused by the complications. Decree of the President of the Republic of Uzbekistan No. PF-60 of January 28, 2022 "On the development strategy of the new Uzbekistan for 2022-2026", No. PF-5590 of December 7, 2018 "On comprehensive measures to fundamentally improve the healthcare system of the Republic of Uzbekistan" decrees, Decision No. PQ-5199 of July 29, 2021 "On measures to further improve the system of specialized medical care in the health sector" and other regulatory and legal documents related to this activity, this dissertation research serves to a certain extent.

The level of study of the problem. Analysis of the literature of recent years shows that internal genital prolapse is one of the most important problems, and the high number of relapses after surgical treatment has a serious impact on the quality of life and social life of women. In these pathologies, recurrences after primary surgery are observed in the first 3 years from 33% to 61.3%. (Malkhasyan V.A. 2012; Ishchenko A.I. 2017). According to the opinions of several scientists: "the high frequency of relapses is due to the fact that the disease is polyetiological, there are no criteria for objective diagnosis of the pathology, and differential approaches to the selection of the treatment method." This determines the need to determine a new method of surgical treatment of genital prolapse and the possibility of optimal surgical treatment using local tissues. Currently, elimination of prolapse of the genitals includes radical treatment of GP - various modifications of vaginal or abdominal uterine extirpation. Regardless of the radical nature of the traditional transvaginal or abdominal hysterectomy surgery, approximately 33% of cases of recurrence of the disease are observed. (Marchenko T.B. 2015). Internal genital insufficiency and vaginal prolapse are considered difficult to correct surgically and are very common in clinical practice. (Musin I.I. 2017, Chan C.M. 2011). Currently, there are many transvaginal, laparotomic, combined and synthetic methods of fixation of the vagina in the treatment and prevention of prolapse of the vagina after hysterectomy. In recent times, many synthetic materials are used in the fixation of the vagina. The use of synthetic materials leads not only to positive results, but also to the emergence of new types of complications (Radzinsky V.E. 2018). Many pelvic organ prolapse

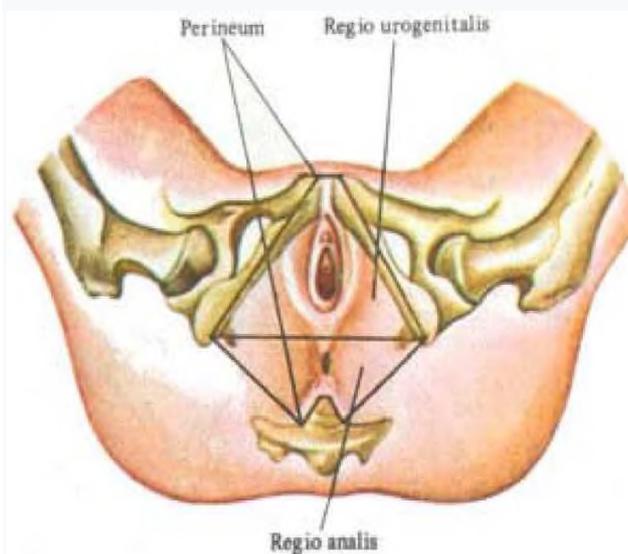
surgeons avoid using synthetic materials show a 5%-35% increase in complications. (S. Hagen, D. Starc. C. Glazener 2014., Seykina V.A. 2017) The most common types of complications are erosion of the vaginal mucous membrane and complications of the synthetic material burn. One of the long-term complications after synthetic materials is vaginal stenosis, i.e. hypertrophic wounds due to incomplete healing of the wound. (Gvozdev M.Yu. 2013).

In our country, the diagnosis and treatment of genital prolapse by mature scientists (Negmatzhanov B.B. 2019), study of distribution and prediction and research on this matter are noteworthy, but surgical practice aimed at choosing the most optimal surgical method of treatment and preventing complications has not been developed. Solving these problems helps early diagnosis and treatment of the disease in a woman with genital prolapse in gynecology practice, which is one of the main tasks of health care. Based on the above, it is possible to carry out scientific research aimed at the development of new surgical treatment methods in the diagnosis and treatment of relapses and possible complications of genital prolapse.

CHAPTER I. ANATOMIC AND PHYSIOLOGICAL FEATURES PELVIC ORGANS GENITAL PROLAPSE EPIDEMIOLOGY, ETIOLOGY, PATHOGENESIS, MODERN CLINICAL CLASSIFICATION, AND MODERN CONCEPTS OF SURGICAL TREATMENT OF THIS DISEASE.

Pelvic floor and perineum. Total information

The pelvic floor is the primary structure supporting slight movements in a consistent position, varying in urinary and fecal continence, urination and defecation. The pelvic floor also plays a whole role in maintaining intra-abdominal pressure. From an anatomical point of view, the perineum is a musculocutaneous fascial plate between the posterior commissure labia majora and the tip of the coccyx. In this case, the anterior one is isolated - between the posterior commissure and the anus and the posterior one perineum - between the anus and the tip of the coccyx. The thickness of the perineum is made up of striated muscles, their tendons and fascia, which form the pelvic floor. Thus, the perineum reflects the state of the pelvic floor. Clinically, it is more rational to call the perineum the area between the posterior commissure and the anus, and the collection of soft tissues occupying the space of exit from the small pelvis (*apertura pelvis inferior*), – pelvic floor.



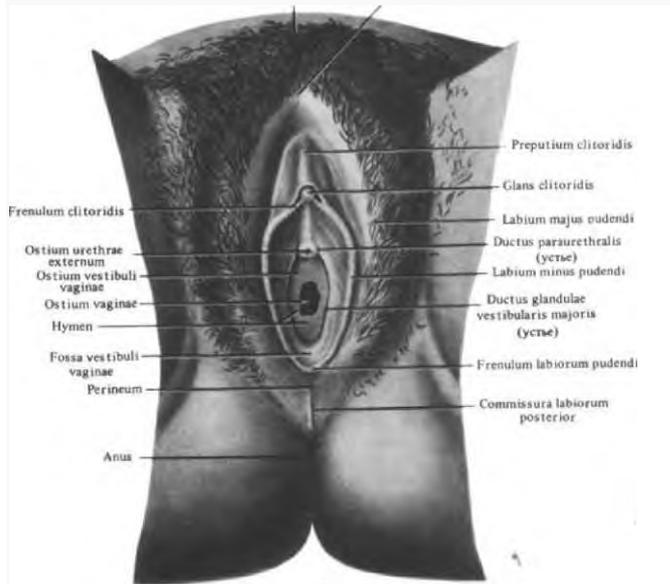
Perineal boundaries

The muscles and fascia of the pelvic floor form the pelvic diaphragm. In this case, a distinction is made between the pelvic (*diaphragma pelvis*) and the genitourinary (*diaphragma urogenitale*) diaphragm. Through the pelvic floor in women passes through the vagina, urethra and rectum. The pelvic floor consists of the genitourinary and anal (anus) region.

The genitourinary region of the pelvic floor has the shape of a triangle.

Its apex is the pubic circulation, and its support is the line connecting the ischial tuberosities. The pelvic cavity, which has the general appearance of a cylinder, is

cut obliquely backwards and downwards at the bottom, so that the spaces of tissue covering the exit from the pelvis do not remain in the same plane. Therefore, the genitourinary region, located at an angle to the anus, has an inclined position, and the organs located on it face forward and down.



Female external genitalia

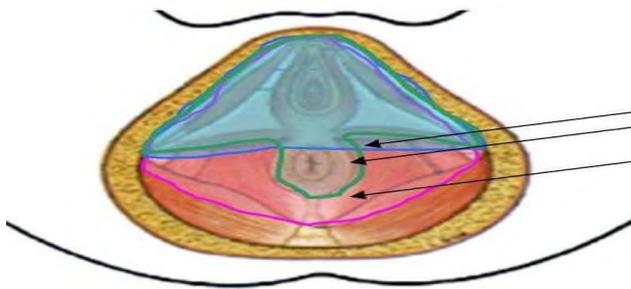
The female external genitalia are located in the genitourinary area organs. The labia majora (*labia majora pudendi*) are two long folds of skin that border the labia shol (*rima pudendi*). In front they are connected by the anterior commissure (*commissura labiorum anterior*), at the back - the posterior commissure (*commissura labiorum anterior*), and at the back - the posterior commissure (*commissura labiorum anterior*).

Thick and large lips contain hard tissue and venous plexuses. At the top they end in round tufts ligaments of the uterus (*lig. teres uteri*).

Inward from the labia majora there are two parallel to them folds of the mucous membrane – (*labia minora pudendi*), limiting the vestibule of the vagina. Their upper end splits into two folds. One goes over the clitoris and, connecting with that of the opposite side, forms the foreskin of the clitoris (*preputium clitoridis*), the other two connect to the clitoris, forming its frenulum (*frenulum clitoridis*). The posterior ends of the labia minora also form a frenulum (*frenulum labiorum pudendi*). Between the labia minora there is the vestibule of the vagina (*vestibulum vaginae*). Under the base of the labia minora are the bulbs of the vestibule (*bulbus vestibuli*). In the vestibule of the vagina, posterior to the clitoris, the external opening of the urethra (*orificium urethrae externum*), the excretory ducts of the paraurethral glands (*gl. vestibulares minores*) and the mouth of the urethra open water ducts of the large glands of the vestibule (Bartholin's) (*gl. vestibulares majores*).

The anal region of the pelvic floor also has the shape of a triangle, the base of which is a line connecting the ischial tuberosities, and the apex – tip of the coccyx (*apex coccygea*). Thus, the two triangles that form the genitourinary and anal areas of the pelvic floor border at their bases. The anal region contains the anus.

Pelvic floor muscles. Muscle



The pelvic floor muscles are usually systematized into three layers of both the genitourinary and anal areas: superficial, middle and internal.

Muscular layers of the pelvic floor

The superficial muscles of the genitourinary region:

- *m. bulbo-spongiosus*, surrounding the entrance to the vagina (*introitus vaginae*), narrows it during contraction;
- *ischio-cavernosus* – starts from the ischial tuberosity and attaches to the cavernous body of the clitoris, emptying when its venous vessels contract;
- *m. transversus perinei superficialis* – a pair of thin muscle bundles coming from the ischial tubercles towards each other, meeting in the tendon center of the perineum; thus, this muscle is located on the border of the genitourinary and anal areas of the pelvic floor.

Superficial muscle of the anal region.

- anal sphincter, which is located under the skin around anus and consists of *m. sphincter ani externum et internum*. The extrinsic muscle may be connected posteriorly to the apex or posterior surface part of the coccyx, and in front - with the tendon suture of the bulbocavernosus muscles. The internal sphincter is involuntary and is located in rest in a state of tonic contraction, providing the main function of fecal retention (its contraction increases with increasing pressure in the rectum). And the external sphincter, being voluntary, complements the internal function with a sharp increase in pressure in the rectum, when the internal sphincter

reflexively relaxes. Smooth fibers are attached to the striated fibers of the internal sphincter rectal muscles.

The middle layer of the pelvic floor muscles (genitourinary area) represents the urogenital diaphragm itself (*diaphragma urogenitale*) and includes.

- transverse deep muscle of the perineum (*m. transversus perinei profundus*) is a paired muscle located between the ischial tuberosities (partially coming from the branches of the ischium and pubis), connecting with muscle of the same name on the opposite side in the tendon center perineum;

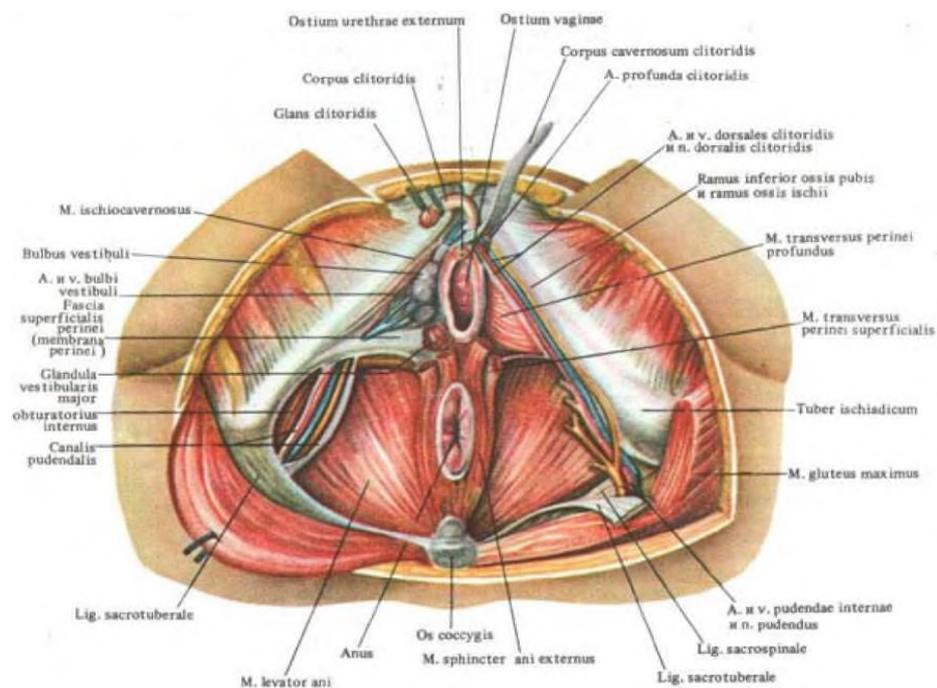
- muscle that compresses the urethra (*m. sphincter urethrae externum*), - lies anterior to the transverse deep muscle of the perineum, surrounding the urethra, part of it is directed to branches of the pubic bones. When the urogenital diaphragm contracts, it compresses the urethra and the large glands of the vestibule of the vagina. The deep layer of the pelvic floor muscles is the pelvic diaphragm (*diaphragma pelvis*), represented by the most powerful muscle of the pelvic floor:

- muscle that lifts the anus (*m. levator ani*). This muscle is divided into three parts, often described as separate paired muscles: iliococcygeus, pubococcygeus (or pubovisceral) and ischiococcygeus.

The iliococcygeus muscles (*mm. ileo-coccygei*) represent is a thin plate that starts from the tendinous arch of the fascia pelvis (between the lower edge of the pubic symphysis and the ischial spine) and along the midline behind the rectum fuse with each other, forming a common tendon that attaches to the top of the coccyx. These muscles lift the pelvic floor.

The pubococcygeus muscles (*mm. pubo-coccygei*), starting from the inner surfaces of the pubic bones near the superomedial edge of the obturator foramen, moving down and medially, are woven into the lateral the walls of the vagina and rectum and form a muscle loop around them. The medial bundles of the pubococcygeus muscle at the level of the upper half of the urethra are woven into the visceral fascia pelvis, surrounding the vagina, and is called the pubovaginal muscle. Part of the muscle fibers of the pubococcygeus muscle intertwined into the wall of the rectum,

called the puborectalis muscle, part its tufts are woven into m. sphincter ani externum. Encompassing the vagina and rectum, the pubococcygeus muscles are attached to the anal coccygeal and sacrococcygeal ligaments (lig. ano-coccygeum et sacrococcygeum). Thus, the term "pubivisceral muscle" is more accurate term "pubococcygeal muscle" because it does not connect to coccyx, and is woven into the walls of the pelvic organs. When the pubococcygeus muscles contract, the rectum, vagina and urethra the channel moves forward and simultaneously contracts. Tonic contractions of the puborectalis muscle play an important role in continence of urine and feces and creating support for the pelvic organs. The muscle fibers of the pubovaginal muscle contract rapidly when coughing or sneezing, provide urine retention.



Pelvic floor muscles

The ischiococcygeus muscles (*mm. ischio-coccygei*), starting from ischial spines, attached to the lateral edges of the lower sacral and to the coccygeal vertebrae. This part m. levator ani participates in the formation of its continuous layer with a characteristic fan-shaped course of fibers and cup-shaped.

In addition to constant tonic contractions, the levator muscle the anus reflexively contracts with any increase in intra-abdominal pressure, counteracting the force that

displaces the pelvic organs downward. Therefore, a complete pelvic floor is the main apparatus that ensures the normal position of the pelvic organs.

To better understand the implementation of the striated function muscle tissue of the perineum, it is necessary to know the histo-biochemical features and the universal mechanism of normal muscle contraction. Striated muscle tissue consists of many elongated fibers - muscle cells (myocytes).

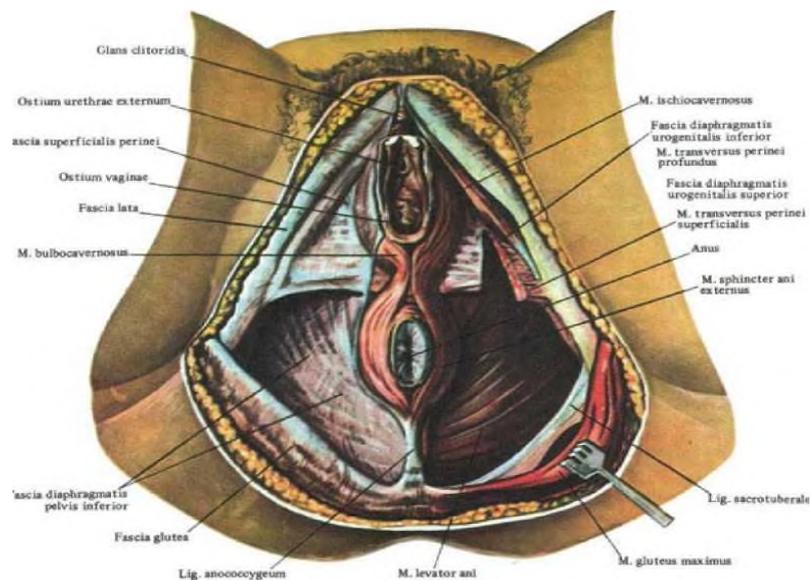
Fascia of the pelvis. Connective tissue

Another important element that ensures the anatomical and functional usefulness of the pelvic floor is the fascia and fascial nodes.

The group of superficial pelvic floor muscles is located in the connective tissue sheath, formed by the superficial fascia, which is a continuation of the general subcutaneous fascia of the body.

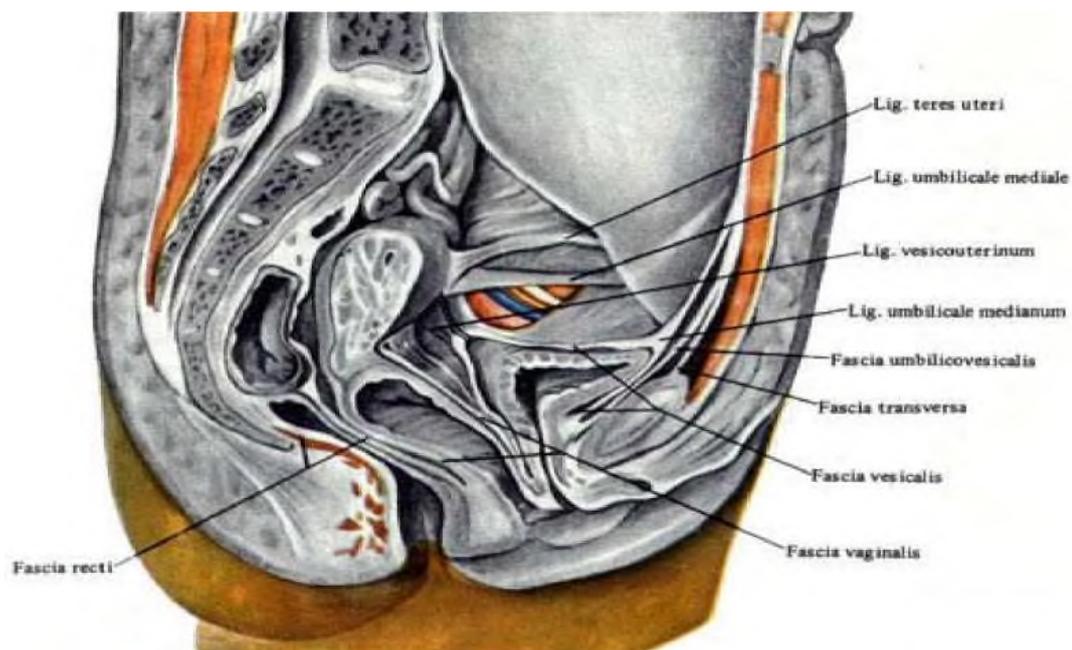
The middle layer of the pelvic muscles is covered with deep fascia, consisting of two records.

The layers of the superficial and deep fascia of the pelvic floor merge between themselves and are fixed to the lower branch of the pubis and to the branch of the ischium. In front they form a dense transverse ligament of the perineum, from below they connect to the vagina and reach the bulb of the vestibule, and also form their own fascia of the clitoris (*f. clitoridis propriae*), on the sides this formation passes into the fascia of the pelvis.



Fascia of the pelvis

The fascia of the pelvis (*f. pelvis*) is a continuation of the intra-abdominal fascia and is divided into parietal (*f. pelvis parietalis*) and splanchnic (*f. pelvis visceralis*). The parietal fascia of the pelvis lines the inside walls of the cavity of the small pelvis below the linea terminalis it splits into two (according to some authors, into three) leaves covering *mm. obturatorius int., piriformis* and *m. levator ani*. Fascia covering *m. levator ani* on top, called superior fascia pelvic diaphragm (*f. diaphragmatis pelvis sup.*). Thickening of the parietal fascia on the lateral wall of the pelvis, approximately above the middle of the height of *m. obturatorii int.*, stretches in the form of a tendinous arch from the posterior surface of the pubis fusion to the ischial spine. From it, on the one hand, the muscle begins, *levator ani*, and on the other hand, this is the place of transition of the upper fascia of the pelvic diaphragm into the splanchnic fascia of the pelvis. The arch is called the tendinous arch of the pelvic fascia (*arcus tendinous fasciae pelvis*).



Ligaments and fascia of the pelvis

The internal fascia of the pelvis also covers the pelvic organs, forming more or less closed containers for them – capsules. The derivatives of the splanchnic fascia are connective tissue septum between the bladder, vagina and rectum (from they are

especially distinguished by the rectovaginal septum). That's why the splanchnic fascia is also called the abdominoperineal aponeurosis.

The inferior surface of the levator ani muscle is covered the lower fascia of the pelvic diaphragm (f. *diaphragmatis pelvis inf.*), which also participates in the formation of the tendon arch *m. levator ani*. The pelvic diaphragm has a special shape - an inverted dome, ensuring the presence of space between it and the ischial tuberosities (peri-rectal space). Between the parietal plate of the pelvic fascia and the peritoneum lining the pelvis, there remain cellular spaces filled with loose connective tissue.

Fascial sheaths and fiber gaps at the junctions form fascial nodes that perform supporting and barrier functions. There are intrapelvic and perineal fascial nodes.

The intrapelvic fascial nodes include:

- presacral nodes;
- uterovaginal septum.

Perineal fascial nodes:

- subpubic (middle anterior);
- tendon center of the perineum (median central);
- rectococcygeal (middle posterior);
- lateral tendon arch (superior lateral);
- lower fascial node of the perineum (fusion of the genitourinary diaphragm with the outlet of the pudendal canal).

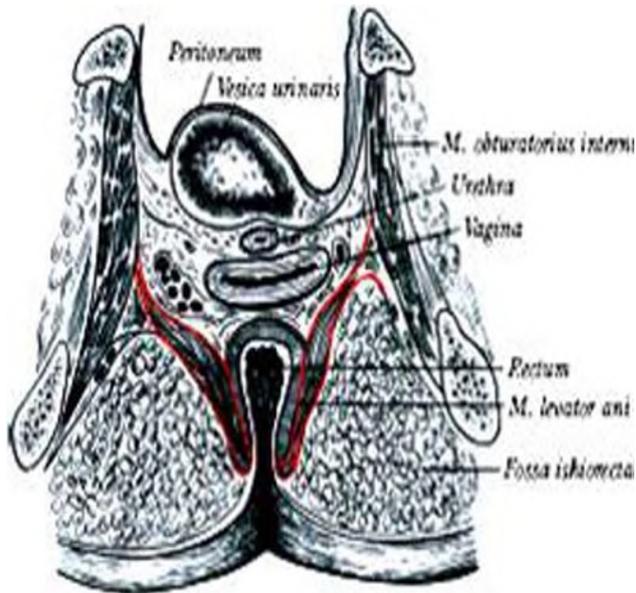
Anti-traumatic tissue structures include mucous bags, reserve folds of collagen, elastic and reticulin fibers, allowing tissues to shift, stretch and thereby resist external mechanical influences, i.e. maintain its shape.

At a more subtle level, the connective tissue of fascia and tendons consists of a small number of cells and intercellular substance formed by collagen, elastin, reticulin fibers and glycosaminoglycans. A characteristic component of connective tissue is collagen fibers.

Connective tissue provides reliable fixation of muscles perineum, ensuring their functional usefulness.

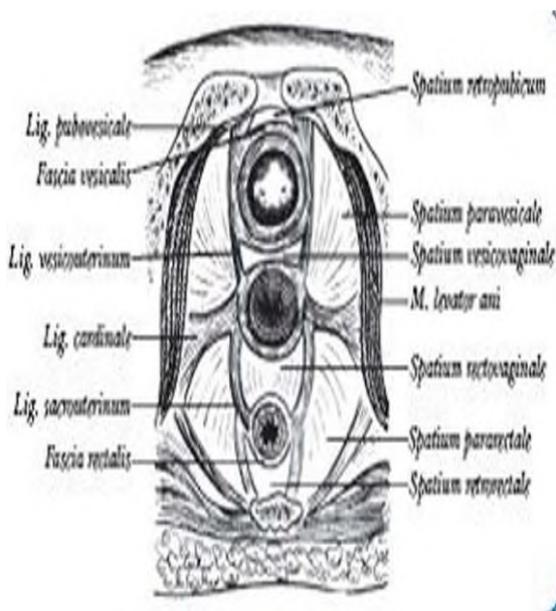
Disturbances in the structure and chemistry of connective tissue lead to weakening of the pelvic floor, since the muscles cannot function normally without reliable fixation. Moreover, according to a number of studies however, it is possible that changes in connective tissue may be one of the causes of perineal prolapse syndrome.

Cellular spaces of the pelvis



Cellular spaces of the pelvis

There are peri-vesical (paravesical), peri-uterine (parametrial), peri-vaginal (paravaginal) and peri-rectal (pararectal) tissue. (I.F. Jordania).



There are parietal cellular spaces separating pelvic organs from its side walls, and visceral organs, enclosed between pelvic organs and their fascial sheaths. There are retropubic (*spatium retropubicum*), paired lateral (*spatium laterale dext. et sin.*) and retrorectal (*spatium retrorectale*) cellular spaces of the small pelvis.

Visceral tissue surrounds all pelvic organs located under the peritoneum.

Parametric tissue is also divided into paired lateral parametric, precervical and retrocervical. In the lower floor of the pelvic cavity, the most extensive cellular space is the ischioanal fossa (*fossa ischioanalis*), located between the lower fascia of the pelvic diaphragm, covering m. levator ani from below, and by the side walls of the pelvis.

She's ahead reaches the posterior edge of the inferior fascia of the urogenital diaphragm (*membrana perinei*), posteriorly limited by the edge of *m. gluteus maxim*

There is an idea about the insufficiency of the pelvic tissue spaces and, especially, parametric tissue as one of the reasons genital prolapse. However, even having lost fiber, the pelvic organs do not can prolapse through a full-fledged perineum. Thus, the soft structure of the fiber is not a significant support for the pelvic organs.

Bone pelvis.

The main supporting function for the muscles and tendons of the pelvic floor, and the bone pelvis also functions as a container for the female genital organs, lower urinary tract, rectum, as well as fascia and cellular spaces. In addition, according to bony landmarks one can judge the degree of dystopia of the pelvic organs.

The bony pelvis consists of four bones: two pelvic bones, the sacrum and the coccyx. The pelvic, or nameless, bone (*os coxae s. innominata*) is formed from fusion of three bones: the ilium (*os ileum*), the ischium (*os ischii*) and the pubic bone (*os pubis*). These bones are motionlessly articulated in the area acetabulum. Other articulations of the pelvic bones also inactive or immobile: pubic (*symphysis, or symphysis ossis pubis*), connecting the pubic bones to each other; sacroiliac articulations (*articulaciones sacro-ileacae*), related to weakly mobile joints, are only cartilaginous layers between the sacrum and each of the iliac bones. The only exception is mobile sacrococcygeal joint (*articulacio sacrococcygea*).

The cavity of the bony pelvis is usually divided into large (*pelvis major*) and small pelvis (*pelvis minor*). On the pelvic bone there are: body - lower section and wing (*ala ilei*) – upper section. On the inside of the bone there is an arched protrusion - an inflection line separating these two educations. The line is called the boundary line (*linea terminalis*). Linea terminalis, separating the pelvic cavity from the pelvic cavity, limits the upper opening of the pelvis (*apertura pelvis superior*), also called the entrance to the pelvic cavity. The pelvic bones are also held together by the sacrotuberous and sacrospinous ligaments. Sacrotuberous ligaments (lig. sacrotuberale) go from the sacrum and coccygeal bones to the ischial tuberosities. And

the sacrospinous ligaments (*lig. sacro-spinale*) are directed from the free edge sacral bone and coccygeal vertebra to the ischial spine (*spina ischiadica*). These ligaments, bordering the greater and lesser sciatic notches, limit the greater and lesser sciatic foramen (*foramen ischiadicum majus et minus*).

The pelvic bones protect the pelvic organs, but provide virtually no support for them. A very minor aspect remains only pelvic inclination angle. The magnitude of the angle, on the one hand, is determined genetically. This, in particular, explains the traditions of various poses in childbirth among different peoples. On the other hand, the pelvic inclination angle may be changed depending on the characteristics of each woman's life in the process of formation of its skeleton (early heavy physical labor, sedentary lifestyle, curvature of the spinal column, injuries, etc.). For women of the European race, with a vertical body position, the pelvic inclination angle is 45–55°. This angle can be significantly changed by changing body position. It is possible that there may be a deliberately different angle of inclination of the pelvis explained the differences in the incidence of prolapse among representatives different races.

Bone tissue is a special type of connective tissue. It forms bone plates that provide bone strength. The cellular elements of bone tissue are: osteocytes, osteoblasts and osteoclasts.

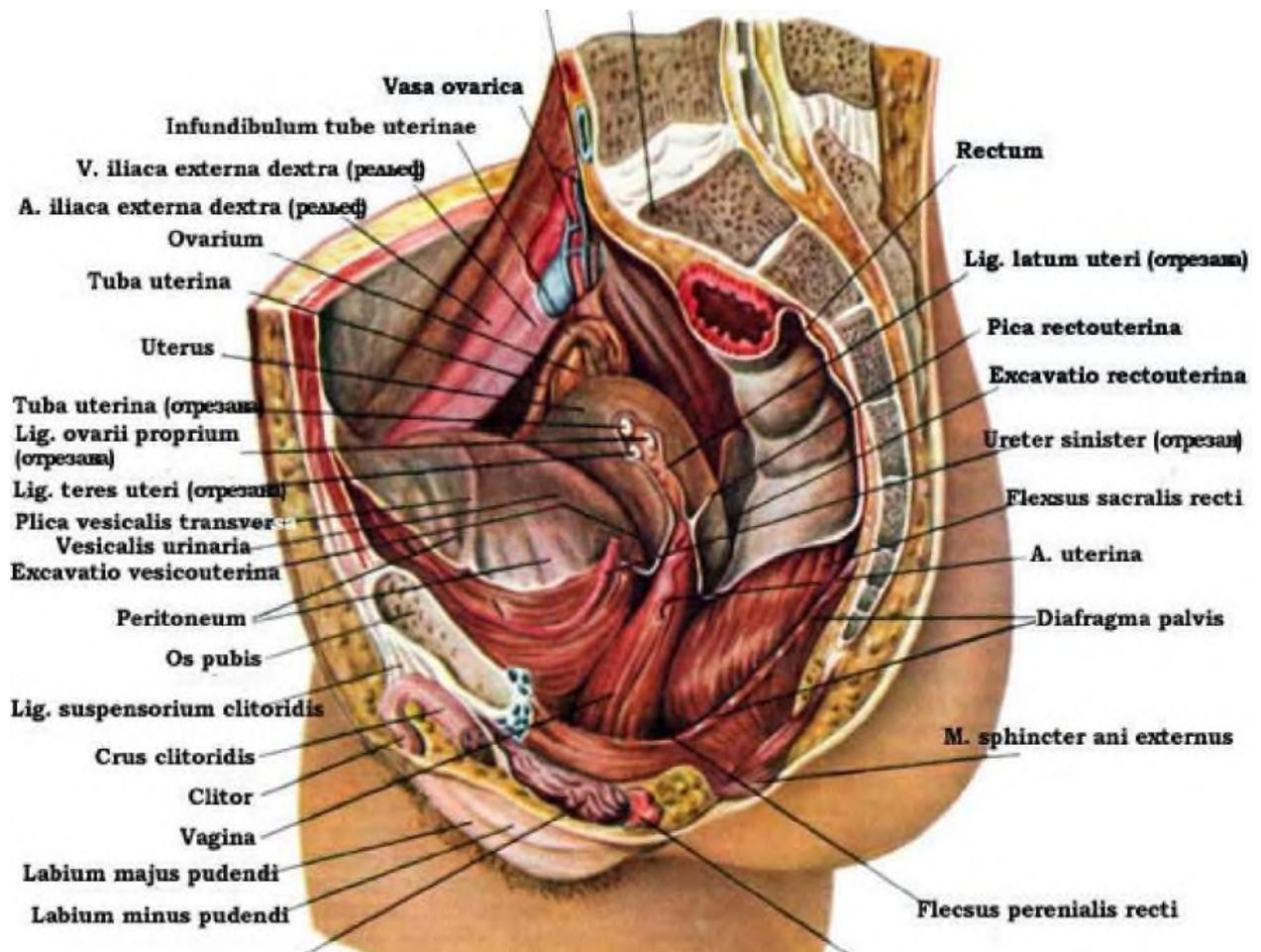
Bone tissue during the development of genital prolapse, apparently, should not be considered (female pelvis large and small - formations, which do not change either shape or size), because in case of bone destruction tissue, the question is about more significant disorders, such as anatomical, and functional. It should be noted, however, that searching for markers connective tissue dysplasia, apparently, should also concern the peculiarities of the structural organization of bones. Probably, osteoporosis in the menopausal period is also genetically determined hormone-dependent diseases.

Topography of the pelvic organs

The organs of the female genitourinary system are mainly located in the pelvic cavity. The anterolateral part of the cavity is lined by the beginning of the internal

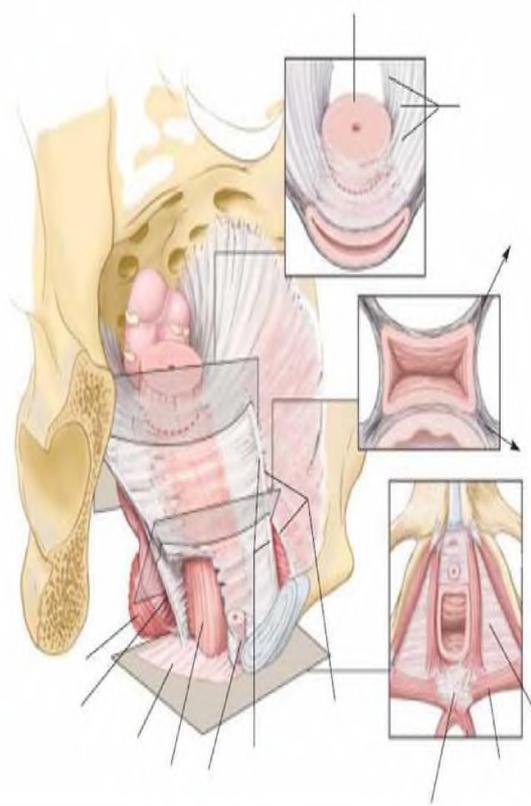
locking muscle (*m. obturatorius internus*), the posterolateral part - pear-shaped (*m. piriformis*).

For a general overview of the topography of the pelvic organs, it is convenient to use the division of the pelvic cavity into floors accepted in topographic anatomy: peritoneal, subperitoneal and subcutaneous.



Topography of the pelvic organs

The first floor of the pelvic cavity (cavum pelvis peritoneale) is located below the conventional plane passing through the linea terminalis, and forms, as it were, the bottom of the peritoneal cavity. Here are the organs that completely or partially covered by peritoneum: the upper and posterolateral parts of the bladder, most of the uterus, ovaries and fallopian tubes, the posterior vaginal fornix and the peritoneal part of the rectum



DeLancey's three levels of vaginal support. The sections are made perpendicular to the vaginal axis.

The second floor (*cavum pelvis subperitoneale*) is enclosed between the pelvic peritoneum above and the pelvic diaphragm below. In this area there are subperitoneal organs and formations of the small pelvis, surrounded by fascia and cellular spaces: extraperitoneal sections of the bladder and rectum, pelvic parts of the ureters, cervix, upper vagina, circulatory and lymphatic vessels, nerve plexuses and trunks, lymph nodes.

The third floor (*cavum pelvis subcutaneum*) is the space between the lower fascia of the pelvic diaphragm and the skin, i.e. crotch.

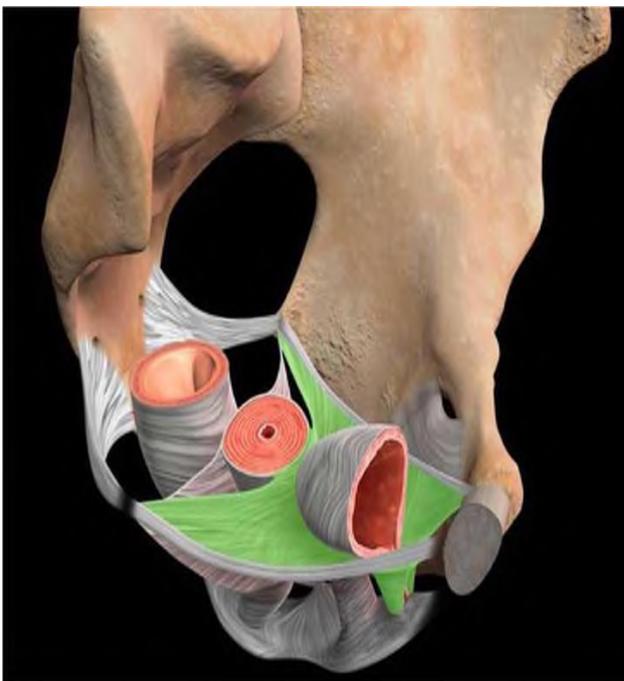
The shape and location of the pelvic organs correspond to the type of pelvic rings. Thus, with a uniformly wide pelvis (sacropetal type of topography), the axes of the pelvic organs are tilted towards the sacrum. Bladder is cup-shaped and its bottom is low, the uterus is in retroposition. The rectal ampulla is highly developed; *septum rectovaginale* inclined towards the sacrum and its height is shortened. With a flat pelvis, compressed front to back (symphysopetal type of topography), bladder has a spherical shape with a high bottom; uterus - in ante-position; rectum is cylindrical in shape; The rectovaginal septum is deviated towards the pubic symphysis and elongated.

The location of organs in the pelvic cavity in women is as follows: The bladder is adjacent to the front wall, the rectum is to the back wall, and the uterus is located between them. On the sides of the uterus are the ovaries connected to it by the broad uterine ligament. Closer to the side walls are the vessels and nerves of the pelvic

organs. The pelvic parts of the ureters descend along the side walls. Below from the urinary the bladder is located the urethra, under the body of the uterus – its cervix and vaginal vaults. The ureters pass to the side of the cervix, heading to the bottom of the bladder. All organs are covered by peritoneum, splanchnic fascia of the pelvis and pelvic tissue. It forms a kind of hammock under the bladder, which is attached along the periphery to the pubic symphysis, branches of the pubic bones and the lateral walls of the pelvis. Rear wall strength the vagina is caused by a section of the pelvic fascia called the rectovaginal fascia Denonvil`s fascia which serves as a frame that prevents prolapse of the anterior wall of the rectum into the vagina.

The third level is the lower portion of the vagina (3 cm above the vulvar ring), which includes the urethra in front and the *perineal body* or tendon center in the back. The second level of support smoothly transitions into the third.

The analogy of a suspension bridge is used to understand how the pelvic organs and fascia are located relative to the stationary bony pelvis. According to DeLancey's theory, there are three level of vaginal support.



Pubovaginal fascia (Galbana)

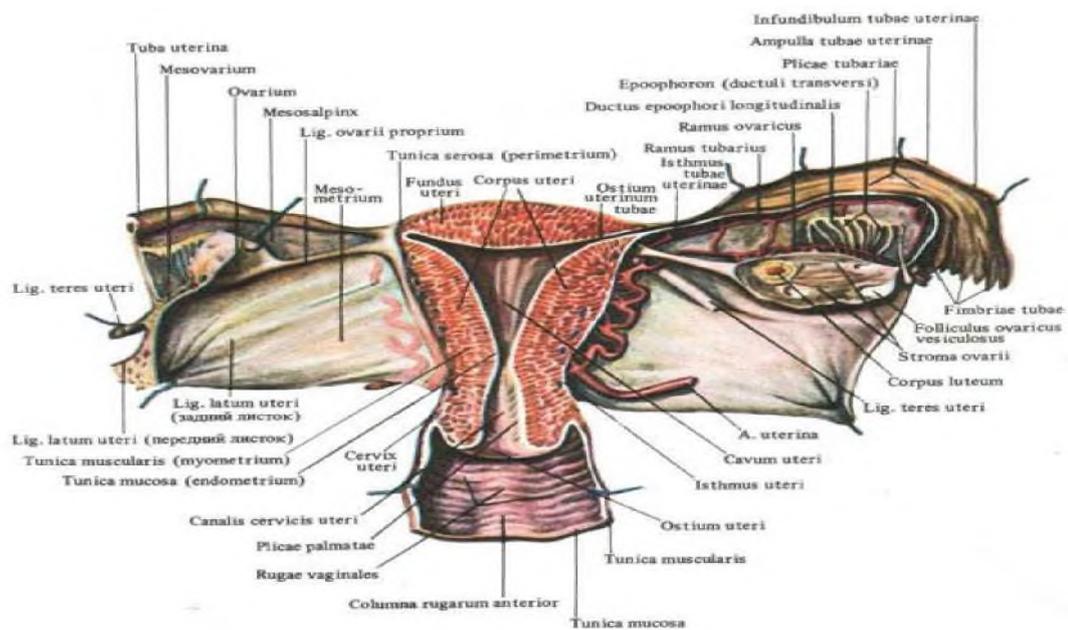
First level - the apex of the vagina is attached to the walls of the pelvis and the sacrum due to the cardinal and uterosacral ligaments.

Second level - the middle part of the vagina is laterally attached to the tendinous arch of the pelvic fascia in front and the levator muscle anus from behind. The strength of the anterior vaginal wall is determined by a section of the pelvic fascia known as the pubocervical fascia or Galban's fascia.

The trampoline analogy explains the functional relationship between the ligaments, vagina and muscles. Normal pelvic floor “springs” when intra-abdominal pressure increases due to supporting ligaments and muscles. If the supporting structures fail and there are defects in the fascia, the vaginal wall does not return to its original position and sags.

Uterus and its ligaments

The uterus (*Latin - uterus; Greek - metra s. hystera*) is an unpaired hollow muscular organ located between the bladder in front and the rectum intestine from behind, its shape resembles a pear, squeezed from front to back. The uterus is distinguished between the body (*corpus uteri*) and the cervix (*cervix uteri*). From above the body is limited by a massive domed bottom (*fundus uteri*). The vesical surface (*facies vesicalis*) is more convex than the intestinal surface (*facies intestinalis*). On the sides, both surfaces form the edges of the uterus - margo uteri (*dexter et sinister*). The uterine cavity (*cavum uteri*) has the appearance of a triangular-shaped frontal slit with the base facing upward, towards the fundus. The openings of the uterine and fallopian tubes open at the corners of the base (*tubae uterinae*). The top of the uterine cavity opens into the cervical canal (*canalis cervicis uteri*). The junction of the uterine body and the cervix is narrowed and wears name of the isthmus (*isthmus uteri*). The cervix is narrower than the body and usually has an elongated cylindrical form. The lower third of the cervix is covered by the vagina and is accessible to vaginal examination. Therefore, the cervix is divided into two parts: supravaginal (*portio supravaginalis*) and vaginal (*portio vaginalis*). The cervical canal (*canalis cervicis uteri*) opens into the vaginal cavity external os of the uterus. This hole is round in women who have not given birth, and oval in women who have given birth. It is limited by the anterior (*labium anterius*) and posterior (*labium posterius*) lips. The anterior lip is thicker and more massive than the posterior one, but the posterior lip appears longer because the posterior wall of the vagina is attached to the cervix higher than the anterior one.



Uterus and its ligaments

The wall of the uterus consists of three layers: the mucous membrane, or endometrium (*tunica mucosa s. endometrium*), without submucosa; muscular, or myometrium (*tunica muscularis s. myometrium*), and serous, or perimetry (*tunica mucosa s. perimetrium*), with a subserosal base. The peritoneum covers the uterus over most of its surface. In front, the uterus is covered with peritoneum to the level of the isthmus, therefore the vesicouterine recess (*excavation vesicouterina*) is less deep compared to the rectouterine (*excavatio rectouterina*). Posterior peritoneum covers the body of the uterus, cervix and vaginal vault. Moving onto the rectum, the peritoneum forms an extensive rectouterine cavity (*excavatio rectouterina*) (space of Douglas)

The lateral edges of the uterus are devoid of peritoneal cover, since the peritoneum on the anterior and posterior surfaces of the uterine body extend to the sides, covering large vessels of the uterus. Then both layers of the peritoneum unite, forming paired broad ligament of the uterus (*lig. latum uteri*). The broad ligament of the uterus plays the role of a paired mesentery for the uterus (*mesometrium*), the edges of which are fixed to the side walls of the pelvis in the area of the sacroiliac joint, and the base continues into the peritoneum lining the pelvic floor. In the thickness of the broad ligament of the uterus along its free the fallopian tube passes at the edge at the top, below there is its own ligament ovary (*lig. ovarii*)

proprium) – behind and round ligament of the uterus (*lig. Teres uteri*) - in front. The outer part of the broad ligament, running from the ovary and ampullar part of the fallopian tube to the side wall of the pelvis, is called the ovarian suspension ligament (*lig suspensorium ovarii*); a. et v. ovarica. At the base of the broad ligament, in the thickness of the peri-uterine tissue (*parametrium*), the ureter and uterine artery pass, located uterine and vaginal venous and nerve plexuses. Wide and round uterine ligaments, as well as suspensory and proper ligaments. The ovaries make up the suspensory apparatus of the uterus.

From the posterior surface of the uterine body at the level of the isthmus along the lateral wall of the pelvis, limiting the rectal-uterine cavity from the sides and passing to the lateral walls of the rectum, the rectouterine fold of the peritoneum (*plica rectouterina*) stretches. In its thickness passes the ligament of the same name (*lig. rectouterinum*), as well as bundles of smooth muscle fibers - the rectouterine muscle (*m. rectouterinus*). In the clinical literature, this complex formation is called the uterosacral ligaments. Along the uterine artery at the base of *lig. Latum uteri* there are also numerous bundles of connective tissue running transversely from the cervix and upper part of the vagina to the lateral pelvic walls. Between the fiber bundles there are gaps filled fiber, compacted partitions. The complex of these bundles clinicians called the main, or cardinal, ligament of the uterus (*lig. cardinale*). Smooth muscle and connective tissue fibers coming from the lower parts of the anterior surface of the uterus to the bladder and pubis are called pubovesical ligaments (*lig. pubovesicales*). In the transition area connective tissue from the anterior surface of the uterus to the bladder a vesico-uterine fold (*plica vesico-uterina*) is formed. The cardinal, uterosacral and pubovesical ligaments of the uterus make up the fixing apparatus of the uterus. However, despite the powerful suspension and fixation apparatus, the position of the uterus varies significantly. Normal uterus in relation to the longitudinal axis of the pelvis is tilted forward (*anteversio uteri*).

The body of the uterus with the cervix forms an obtuse angle, open anteriorly (*anteflexio uteri*). At the same time, maintaining uterine mobility is the main

condition for its normal functioning. Thus, the suspensory and fixing ligaments of the uterus are only bundles of connective tissue and smooth muscle fibers located around more or less large vessels. They are not strong enough to provide support to the pelvic organs, and when under constant load they lengthen quickly. Ligaments and visceral fascia small pelvis only provide a certain position of the internal organs, in which the function of the pelvic floor is optimal.

The main burden of maintaining the pelvic organs falls on the muscular layer of the pelvic floor, since muscles and fascia fix it the uterus through the cervix and vagina on one side, and on the other, creating support for the uterus from below. Therefore, weakening of the pelvic floor - perineal incompetence syndrome - leads to prolapse of the vagina and uterus, cystocele, rectocele and other disorders.

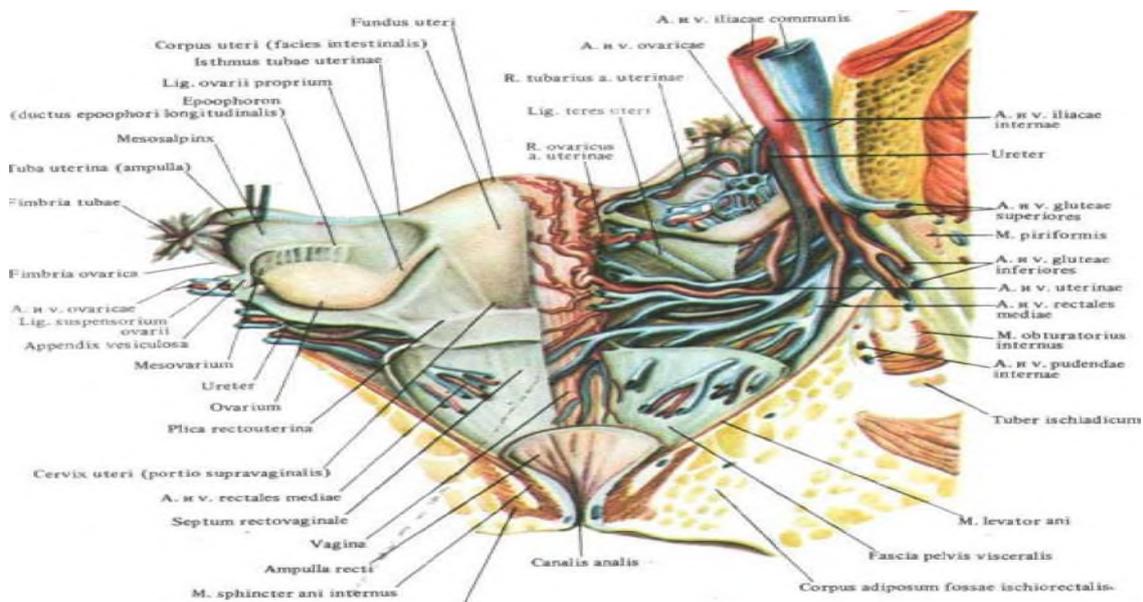
Blood supply, lymphatic drainage, innervation

The blood supply to the pelvic floor comes from a. pudenda (*interna et externa*), arising from the internal iliac artery.

It sends branches to various formations of the pelvic floor. Additionally, the pelvic floor is supplied with blood a. rectalis media. Venous drainage carried out through the veins of the same name. The main nerve involved in the innervation of the pelvic bottom, is the pudendal nerve (*n. pudendus*), it begins from the sacral plexus. N. pudendus leaves the pelvic cavity through the large sciatic foramen, and then through the lesser sciatic foramen penetrates into the ischioanal fossa. Then he moves forward and passing near the ischial tuberosity, supplies motor fibers superficial muscles of the perineum and urogenital diaphragm. The sensory fibers of this nerve end in the skin of the perineum and external genitalia. In addition, in the innervation of the pelvic floor they take involvement of the lumbar nerve and hypogastric plexuses.

The uterus receives arterial blood through a. uterina, branch a. iliaca interna. The initial section of the artery is about 4–5 cm long descends along the side wall of the pelvis, then the artery enters the base broad ligament of the uterus and approaches the cervix. At a distance of 2 cm from cervix a. The uterina crosses the ureter, passing from the front downwards. In the area of the cervix, the uterine

artery gives off to the vagina r. vaginalis, and herself takes an upward direction and runs along the edge of the uterus between the layers of lig. latum uteri, giving lateral branches to the cervix and body of the uterus. In area angle it is divided into two branches: r. tubarius - to the fallopian tube, r. ovaricus - to the ovary. The cervical branches reach the upper part of the vagina and anastomose there with each other and with the vaginal vessels. Blood supply to the uterus is possible partly through anastomosis a. ovarica with r. ovaricus a. uterinae.



Pelvic floor, uterus and its appendages: blood supply and venous drainage

Venous drainage from the uterus, fallopian tube and ovary occurs through the powerful venous plexus (plexus venosus uterinus). Blood flows from the plexus in three directions. From the upper part of the uterus, ovaries and fallopian tubes, blood flows out through vv. ovaricae on the right into the inferior vena cava, on the left into the left renal vein; from the bottom half the body of the uterus and the supravaginal part of the cervix - through vv. uterinae and vv. iliaca internae; from the vaginal part of the cervix and vagina - invv. iliaca internae.

Lymph from the cervix and part of the body of the uterus is drained into the nodi lymphatici iliaci et sacrales; from the body and fundus of the uterus, as well as from the ovary and fallopian tube – along move vasa ovarica in nodi lymphatici

lumbales Part of the lymph from the uterus can flow through the lymphatic vessels accompanying lig. teres uteri, in the inguinal nodes. The uterus is innervated from the uterovaginal plexus (*plexus uterovaginalis*), which through the plexus hypogastricus inferior (*pl. pelvicus*) receives sympathetic fibers through the nn. Splanchnici pelvini, also entering the plexus pelvicus - napasympathetic fibers. Plexus uterovaginalis is located in the cervix. From here, the nerve fibers spread to the cervix and body of the uterus. Nerve fibers penetrate into the thickness of the muscle membrane up to the mucous membrane, where they form secondary plexuses. As part of plexus pelvicus they can afferent fibers of spinal origin also pass through. The ovary is innervated mainly through the ovarian plexus (*plexus ovaricus*) along the vasa ovarica, the fallopian tube - plexus ovaricus and plexus uterovaginalis. It is important to note not only a single anatomical and functional organization of the muscular-fascial formations of the pelvic floor, but also its close relationship with blood supply, innervation and lymph circulation of the pelvic organs.

§ 1.1. Modern concepts of classification of epidemiology, clinic, etiology and pathogenesis of genital prolapse

Genital prolapse (GP) refers to a violation of the physiological state of the walls of the vagina and / or the uterus, manifested by the descent of the genitals to or below the vaginal vestibule.

The urgency of the problem of genital prolapse in women today is that it is widespread, early manifestation of clinical symptoms, and in many cases it is related to the recurrence of the disease after surgery, and the fact that the disease does not tend to decrease in statistics remains one of the urgent problems facing obstetricians and gynecologists today. As part of gynecological diseases, genital prolapse is 28% to 39%, and 15% need surgical treatment. Especially high rates of the disease occur at the age of over 50 years, and at present, the number of patients of reproductive age with the clinical picture of insufficiency of the groin muscles is increasing. In recent times, the prolapse of the genital organs is

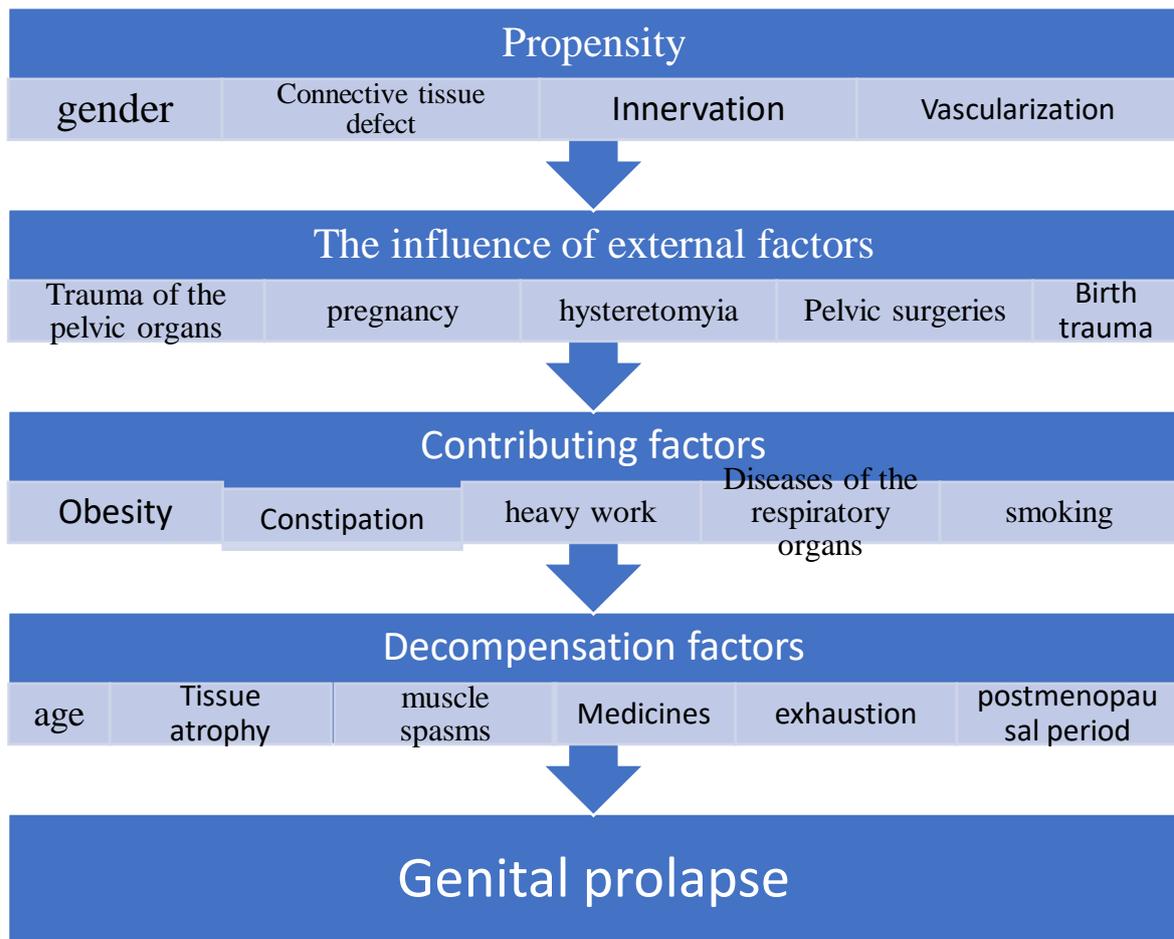
"younger", the prevalence of severe forms of the disease and the involvement of adjacent organs in the process are observed. . In the later stages of the process, at the III-IV level, prolapse of the genitals and other complications related to the prolapse caused by the violation of the normal anatomy and biocenosis of the vagina due to urogenital and anorectal dysfunction: inflammatory diseases of the vagina (colpitis) and cervical (cervicitis), trophic wounds of the vaginal wall "decubitus" , cervical elongation, chronic endocervicitis or a combination of two or more of these complications. Many studies conducted in recent years have not been able to identify a single cause of the development of prolapse, but have only confirmed the multifactorial nature of the development. Genital prolapse is an important medical, social and moral problem in the world today. According to the World Health Organization, "In 2030, approximately 63 million women will suffer from erectile dysfunction, and one in nine women under the age of 80 will undergo surgery for this disease, and 30% of them will require re-surgery..." . , but the growing trend among young and middle-aged women has been the focus of attention of surgeons and gynecologists. "Currently, there are more than 300 methods of surgical treatment of pelvic organ prolapse, but the effectiveness of the proposed methods is insufficient, and the recurrence rate of the disease reaches 25-30%. This situation depends not only on the selection of an inadequate surgical method, but also on the quality of the preparation of patients before and after surgery. There are several principles of prolapse genital surgery correction: restoration of the normal topography of the pelvic organs, correction of functional diseases, use of combined surgical techniques to achieve high-quality results with a very low rate of recurrence of the disease. Difficulties in the surgical treatment of genital prolapse are related to the age of the patients and the history of specific somatic diseases. Multiple recurrences after surgery require the search for new approaches to solve this problem. In order to develop the medical sector of our country, to adapt the medical system to the current requirements, to ensure the provision of high-quality and timely medical services to the population, the Decree of the President of the Republic of Uzbekistan No. on the basis of forming

a modern system of medical care for the population, improving the quality, as well as strengthening the health of the population, developing urgent and specialized medical care for women and children, introducing modern screening programs, forming a regional multidisciplinary medical complex and information systems, and a maternal and child protection system by creating effective models of improvement, patronage service and dispensary, supporting a healthy lifestyle and prevention of diseases. These tasks allow to raise the level of modern medical services in the diagnosis and treatment of gynecological diseases in women to a new level, and to reduce diseases by improving the use of modern technologies in the provision of quality medical services. According to a number of authors, GP can be considered a hernia of the inguinal organs in the area of entry to the vagina (V. Lisitsya, 2015). At the same time, the hernial gates, the hernia sac and its contents, including the internal genitals, often the bladder, rectum, small intestine loops, are usually understood as part of the hernia [4; pp. 81-84].

Many researchers (Subak II, Veetjen Le, Vanden Eaden Setal, 2001) [64; 6-14 p.] note the prevalence of genital prolapse in the world among women of reproductive age, premenopausal and postmenopausal. For example, almost every second woman over the age of 50 has this disease, and 11.1% of them need surgery. According to the World Health Organization (WHO), by 2030, approximately 63 million women worldwide will suffer from genital prolapse, as the number of elderly people will double, and therefore the problem of genital prolapse will become more pressing [84; 1160-1166 p.].

During the past century, important changes have taken place in the lifestyle of women in the world, in the life of the family and civilization. Lifestyle and the role of women in society, the nature of work and life have changed, physical activity has decreased, but the problem of GP has not been solved. Despite significant progress in the study of etiology and pathogenesis, the identification of risk factors for prolapse, the development of many methods for its correction, today's medical science has not been able to fundamentally solve the problem of GP and reduce the spread of the disease. [348-350 b,14; 256 b]. In modern society,

there is a clear trend of a reduction in the number of children and a simultaneous increase in life expectancy [348-350 b,14; 256 b]. However, as women age, prolapse of the internal genital organs causes anatomical and functional disorders to significantly decrease the quality of life, and this has caused social maladaptation. (Glebova Nn, et al. 1997; Baisova E. I., 1999; Makarov O. V. et al., 2000; Shull B.L Bl, 1999; Rappi N.K et al., 2000; Furst A. and et al., 2000). Without a direct threat to a woman's life, genital prolapse often leads to a deterioration of psycho-emotional condition, sexual and generative dysfunction, even a decrease and even loss of working capacity [16; 43-50 b, 35; pp. 58-61]. Determining the actual number of women with genital prolapse is somewhat difficult, because statistics on the number of women, as a rule, are determined only by the number of visits to the gynecologist and the number of surgical procedures performed at the JAP, and this, in turn, [85; 449-452 p.] lack of accurate information about the disease and often leads to detection of the disease in severe stages. At the same time, there are many potential patients who do not seek medical care or seek it too late, so the data on the prevalence of GP of various stages and types from domestic and foreign literature is widespread - from 3 to 94% [3; 133 b, 86; 105-115 b, 87; 293-303 b, 14; 256 b, 89; pp. 213-216]. According to many sources, risk factors for genital prolapse are divided into four groups: predisposition (genetic, hereditary, innervation); external factors (pregnancy, childbirth, pelvic floor surgery, hysterectomy, muscle trauma and nerve injury); auxiliary factors (weight gain, smoking, lung disease, constipation, heavy physical work); decompensating factors (old age, postmenopausal period, myopathy, neuropathy, exhaustion) [2; 104-110 b, 9; 348-350 b, 14; 256 b, 13; 8-11 b,31; 774 pp.]



Many classifications have been proposed to determine the degree of GP. A classification based on the size of the downward movement distance of the internal genitals, which is convenient for practical activities, is convenient:

- 1) I level - the cervix descends to the distance of half of the length of the vaginal canal;
- 2) II degree - the walls of the cervix and / or vagina fall to the threshold of the entrance to the vagina;
- 3) III degree - the walls of the cervix and / or vagina fall outside the entrance of the vagina, and the body of the uterus is located above;
- 4) IV degree - the entire uterus and/or vaginal walls are located outside the vaginal opening, i.e. they are completely descended.



IV degree- Genital prolapse



III degree- Genital prolapse

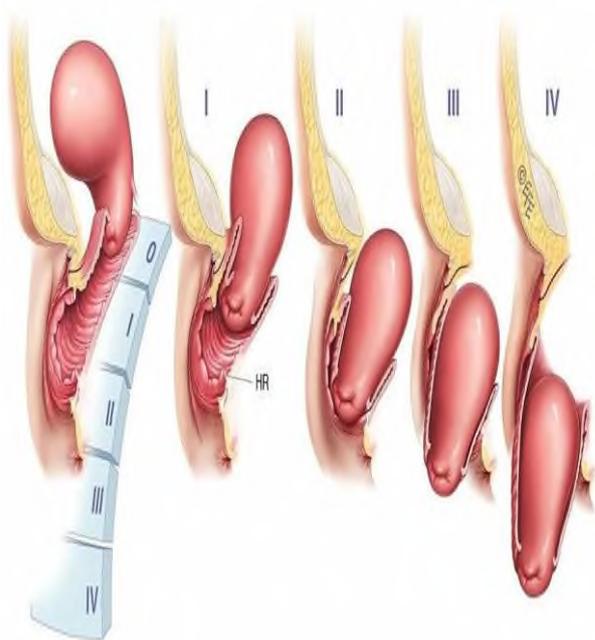
M. S. According to the classification of Malinovsky (1946), 3 levels of internal genital prolapse were shown, but many researchers do not consider this classification to be objective [59; 28-32 b, 28; 32-39 b, 70; pp. 918-922].

In 2001, A. A. Papov proposed a special classification of genital prolapse, taking into account the involvement of neighboring organs in the process - bladder and rectum [59; 28-32 b, 28; pp. 32-39]

Currently, two PT classifications are most commonly used: Baden–Walker and Pelvic Organ Prolapse Quantification System (POP-Q).

In 1992 Baden W. F and Walker T. proposed a semi-quantitative system to determine the distance between organ prolapse and the hymen during physical exertion and to assess the degree of pelvic organ prolapse. The unit of measurement is half the distance from the commonly located uterus to the hymen (the "half way" system). (the "half way" system)

- | | |
|--|--|
| <p>1) I-level - the descent of the internal organs is equal to half of the distance to the hymen.</p> <p>2) Level II - descent of the uterus to the hymen</p> <p>3) Level III - the uterus 's descent below the hymen, the distance from</p> | <p>the hymen to the hymen is up to half the distance.</p> <p>4) IV level - complete descent of the uterus.</p> |
|--|--|



The IUGA Standardization of Terminology Committee has proposed a standardized classification of POP-Q (Pelvic Organ Prolapse Quantification) using quantitative measurements at 9 different points. The following points and parameters are described in the applied position or at an angle to the plane of the hymen, when changes are most often detected during the Valsalva test.



I degree- Genital prolapse

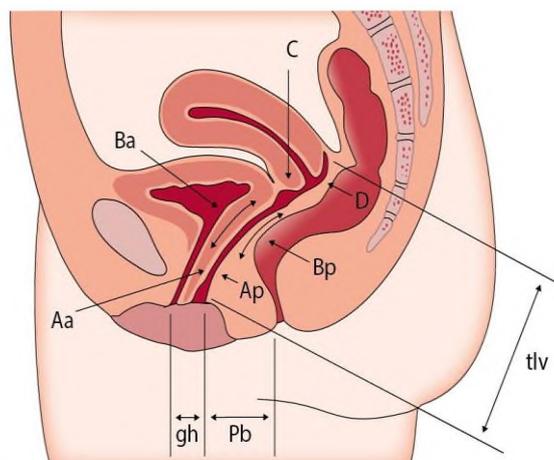


II degree- Genital prolapse

Accordingly, the position of 6 anatomical points (Aa, Va, Ar, Vr, C, D) is measured above or proximal to the hymen (resulting in a negative pointer in centimeters) or below it - distal to the hymen (a positive pointer in centimeters is obtained). The other three parameters (TVL, Gh and Pb) were measured accurately. The stage of prolapse is determined by the most descending part of the vaginal wall. Usually, the

descent of the front wall (point Va), the apical part (point C) and the posterior wall of the vagina (point Bp) is diagnosed

Aa- the front wall of the vagina; Ar-the lower part of the rectum; Vp - the back wall of the vagina above the levators; C-cervix; D - the back arch of the vagina; TVL is the total length of the vagina; Gh - genital slit; Pb- intermediate body.



Pelvic prolapse detection system (POP-Q)

(POP-Q) - classification is somewhat misleading, but it allows to more accurately determine the degree of pelvic organ prolapse in patients before and after surgical treatment, as well as to choose the correct tactics of surgical intervention and to determine its effectiveness in the postoperative period.

According to literary sources, the causes of genital prolapse are: postpartum trauma of the pelvic floor, congenital connective tissue dysplasia, hormonal changes before and after menopause, chronic diseases with metabolic processes and microcirculation disorders (Buyanova S. N. et al., 2017) [16 ; 43-50 b, 36; 66-71 b, 30; 774 pp.].

Obstetric-genital prolapse is one of the important risk factors, and therefore, their increase in postpartum injuries increases the likelihood of genital prolapse [91; 643-648 b.] increases the formation. However, one of the main roles in the development of this pathology is obstetric complications (multiple births, large fetuses, long-term, fast or rapid labor, deliveries with breech delivery, vaginal and interstitial trauma, use of obstetric forceps, etc.). According to some authors, the extension of the second period of menstruation affects the occurrence of genital prolapse [13; 8-11, 31; 774 b, 41; 85-87 b, 44; 9-13 b, 83; 796-806 b, 52; 66-71 b, 19; pp. 56-61].

Currently, the important role of connective tissue dysplasia in the formation of GP has been proven. Since the middle of the last century, the theory of systemic connective tissue dysplasia has been developed. Its development plays an important role in explaining the development of genital prolapse in women without a history of childbirth or who have given birth without complications, and in addition, women with a normal hormonal background, patients without chronic diseases, and women without increased intra-abdominal pressure. [14; 256 b, 15; 43-118 b, 26; 3-5 b, 34; pp. 46-48].

According to the theory of DST, the main role in the formation of connective tissue is played by collagen and elastin, which help to maintain the shape of tissues and ensure their contraction and relaxation. The combination of mutations of genes responsible for DST fiber synthesis, i.e. genes responsible for fiber synthesis, leads to incorrect organization of collagen and elastin chains, as a result, incorrect formation of the tissue structure that cannot withstand the necessary functional mechanical loads is observed. Buyanova S.N and the authors (2001) identified certain connections between a number of extragenital diseases (varicose veins, kyphoscoliosis, flat legs, usual dislocation, various localized hernias, ptosis of internal organs, etc.) and genital prolapse. In patients with DST, patients with types I and II, the atypical spatial structure of collagen is replaced by type IV collagen. This leads to serious defects in the structure of ligaments and fascia, a decrease in their mechanical properties and strength, and as a result, functional failure of the pelvic cavity. In addition, a significant increase in the collagen - oxyproline derivative was found in patients with DST (oxyprolinuria was detected). This increases the rate of biological destruction of collagen in the body of patients.

Data on the prevalence of DST are conflicting, due to different classification and diagnostic approaches.

To diagnose DST, a comprehensive examination using clinical and genealogical methods, as well as biochemical and molecular genetic diagnostic methods is necessary [1; 4-9 pp.].

In women of reproductive age with DST, genital prolapse develops earlier and manifests much earlier.

Another risk factor is the hormonal background, which has a significant negative effect on the pelvic floor. Estrogen deficiency contributes to the increase of genital prolapse, because there are many estrogen and progesterone receptors in the interstitial tissue [7; 16-22 b, 91; pp. 643-648]. Hypoestrogeny causes deterioration of blood supply to organs and pelvic tissues, leads to the development of atrophic changes in the vagina, the formation and development of genital warts. [45; pp. 8-11]. Thus, the reason for the deterioration of the tone, strength and elastic properties of the pelvic floor tissues in the periods before and after menopause is confirmed by the wide spread of the disease in elderly and elderly women (Adamyan L. V. i dr., 2000; Manukhina I. B. i dr. , 2000). K. M. Luber et al. (2001), the incidence of JAP in the older age group is 0.17% per year for women aged 30-39 years and 1.86% for women aged 70-79 years, i.e. elderly and elderly women have 10 times more JAP compared to patients of reproductive age.

Chronic lung and intestinal diseases are another important cause that contributes to the appearance of genital prolapse. Frequent coughing and constipation lead to an increase in intra-abdominal pressure, which usually leads to stretching of the musculo-fascial structures that ensure the physiological position of the internal genitalia in the pelvis [31; 774 b, 54; 66 b, 2; 104-110 b, 47; pp. 12-22].

Chronic diseases that cause microcirculation and metabolic disorders, such as diabetes, obesity, internal genital organs [77; 1007-1011 b, 46; 39 p.] causes the development of prolapse. Hyperglycemia in diabetes leads to the formation of vascular microangiopathies, which contributes to a decrease in the supply of nutrients and oxygen to tissues, and hypoxia, in turn, contributes to the formation of destructive changes in tissue and tissues. Obesity causes metabolic diseases, which can lead to muscle failure of the pelvic organs. In addition, abdominal pressure increases with obesity, which has a negative effect on the muscles and fascia of the pelvic cavity and tends to the formation of genital prolapse [38; 1072 pp.].

In healthy women, the uterus is located in a vertical position with the bladder and the colon in the center of the small pelvis at the same level as the symphysis (Fig. 1.3). The outer horn is located in the connecting plane between the teeth of the spacer. The uterus is slightly bent forward, due to the fact that its bottom is directed to the front wall of the uterus (anteversio) and an inflexible angle is formed between the cervix and the body (anteflexio). \The pelvis is located in the small groin cavity, and it is supported by the cervical spine.

Uterine arteries are located slightly behind and on both sides of the uterus.

The bottom of the bladder is attached to the front wall of the uterus and the front of the neck, and the urethra is attached to the front wall of the vagina, its lower third. The rectum is located on the back side of the groin and is connected to it by the soft tissue orca.

On the upper wall of the pelvis is the dome of the pelvis, which forms the cavity of the uterus surrounded by the peritoneum.

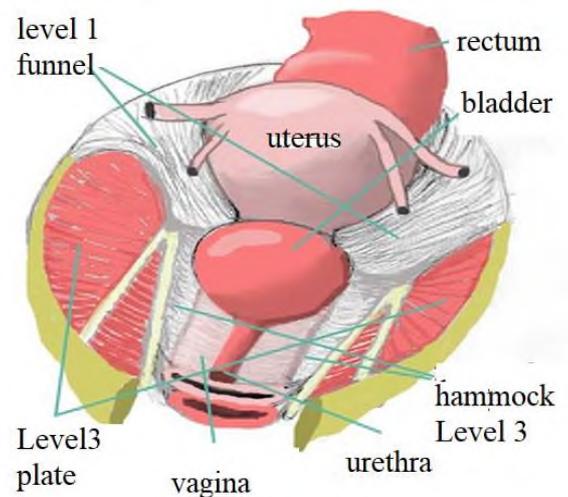


Figure 1.3.-Normal topography of the uterus

The normal position of the female genitals is ensured by the following: a) the tone of the genitals, b) the correspondence of the movement of the diaphragm to the internal organs, c) the connective apparatus of the uterus (waiting, strengthening, holding). The tone of the sexual organs depends on the correct performance of all the functions of the body's systems. Decreased tone is caused by the decrease in sex hormones, the disruption of the function of the nervous system, and age-related changes. The apparatus of the uterus-susceptible ligament includes: round and broad, ovarian and private ligaments. These ligaments ensure the centering of the uterus and its physiological forward bending. The supporting ligament apparatus includes the coccyx-uterus, main, uterus-ureter and uterus-cavity ligaments. Its

function: to keep the uterus firmly in the center without moving it to any side. The pelvic floor muscles (inferior, upper, and upper layers) and the hard connective tissue located on the side walls of the vagina, the colon and urinary bladder are involved in the supporting ligament apparatus of the uterus. To the muscles of the lower cavity of the groin: m. sphincter ani externa, m. bulbocavernosus, m. ischiocavernosus, m. Transverse perineus superficialis. To the muscles of the upper pelvis: diaphragm vesicogenital, ureter sphincter externa, m. transversus perineus profundus. 1 pair of m. levator ani muscles are formed in the upper layer of the pelvic floor muscles.

Among the many theories in the pathogenesis of genital prolapse, the most widespread and supported by researchers is the "integral theory", whose founders are Pe Petros (2007) and U. Wimsten (1990). According to this theory, the physiological function of the small pelvis, as well as maintaining its correct anatomy, is achieved by the equal influence of three multifaceted forces located in the pelvic area. Front forces m. levator ani anterior divisions forces movement forward, Back forces m. levator ani -back, m. Longitudinalis is down. Partial or complete disruption of pelvic organs and support (muscles, ligaments, bone, fascia) elements and structures leads to failure of the pelvic floor, and with increased intra-abdominal pressure - causes prolapse of the vaginal walls and/or uterus. [71; pp. 207-212].

The holding apparatus of the small pelvis can be conditionally divided into three levels: the 1st level is structured like a funnel and holds the uterus and vagina. Level 2 is similar to a swing, it responds to the walls of the colon, urethra, bladder and vagina. Clinical and anatomical forms of prolapse are formed depending on the level of damage.

Thus, GP is formed as a result of polyetiological anatomical-functional failure of the pelvic floor.

In 1996 J. DeLancey proposed the theory that the supporting structures of the pelvis are determined by degrees. The sacral-uterine and cardinal ligaments, which support the first degree of the vagina and the dome of the uterus, are responsible for the strengthening of the uterus and the vagina. If these ligaments are damaged, vaginal

prolapse is observed. The second level is represented by the pubocervical, rectovaginal fascias (Galban and Denovillier fascias), and the pelvic girdle, which corrects the middle third of the vagina. Secondary damage leads to the development of cystocele and rectocele. Third level - lig. Pubouretralis and fascia end opelvica, vagina and urethra support the lower end [92; pp. 49-55]. Disruption of the anatomical and functional state of these structures contributes to the formation of urethrocele [92; pp. 49-55].

Taking into account the peculiarities of the anatomy of the small pelvis, the nature of its blood supply and innervation, as well as the presence of close connections between organs, changes in the constitution of the small pelvis and topographic-anatomical disorders over time occur not only in the internal genitalia, small pelvis and adjacent organs of the abdominal cavity, but also in the whole causes anatomical and functional diseases in the body [71; pp. 207-212].

According to many researchers, the formation of GP relapse depends on a number of factors:

- age of patients,
- obstetrical-gynecological and somatic anamnesis features,
- topographical and anatomical features of prolapse,
- correctness of the selected surgical method.

In this regard, it is necessary to consider each case of JAP differently [62; 49 pp.].

The recurrence rate varies from 30 to 40%. Practice shows that symptoms of GP appear again in the first 3 years after surgery. (Torrens .T 1980, Hieoo Bf N.N 1983; Huland .H 1983, Bloneatall .B 1985/ et al.). According to some authors, genital prolapse occurs in 33-61, 3% (Krasnopolsky VI, 2000; Radzinsky V. E. et al., 2002; Shull B. L. et al., 2000), and according to (Tereshchuk LG, 1985 ; Slavashevich T. M. et al., 1988) this indicator reaches 70%. For many years in Uzbekistan, as in other countries, the main radical surgery in gynecology is hysterectomy with abdominal, vaginal, laparoscopic or combined approaches. According to the literature, it is said that the recurrence of the disease after abdominal hysterectomy in the primary form

of prolapse increased by 5% and after transvaginal hysterectomy by 12% (Radzinsky V. E., 2008).

Pelvic prolapse, often combined with urinary bladder, anorectal and sexual disorders, has a negative impact on the quality of life of patients. [69; 789-798 pp.].

The clinical symptoms of genital prolapse are different and may be related not only to the direct manifestation of the anatomy of the pelvic organs, but also to the pathology of the bladder and intestines. In practice, the most common complaint by women with pelvic prolapse is the presence of an iodine body in the vagina. A detailed analysis of complaints shows their diversity in patients with genital prolapse. Symptoms of the disease develop very slowly, but the quality of life of women decreases significantly when the II-IV severity of the disease is reached. Pelvic organ prolapse is not only complaints related to the prolapse of the vagina and uterus, but also the adjacent organs (bladder, urethra, rectum), which are forced to move, are subject to anatomical and functional disorders [69; 789-798 pp.]. For example, A. Popov (2000) found functional disorders of adjacent organs in 85% of patients with pelvic prolapse [65; pp. 52-54]. And this pathology, in turn, is in the center of attention of urologists and proctologists.

All clinical manifestations caused by genital prolapse can be divided into several groups:

- Symptoms from the pelvic organs: significant discomfort, feeling of a foreign object in the vagina and outside, discomfort, unpleasant and often painful sensations when walking [41; 85-87 b, 61; 756 b, 21; 22 b, 18; 22 b, 42; 24 p.];
- Urinary tract symptoms: According to researchers, urinary incontinence is most common in 10 to 58% of cases. [94; 1021-1028 b, 95; 90-97 b, 67; 46-55 b, 4; 81-84 b, 17; 51-56 b, 26; 3-5 p.];
- gastrointestinal symptoms: constipation observed in 31-41% of women [96; 15-107 p.]. Symptoms such as gas or stool retention, complete bowel emptying are observed [97; 41-49 b, 98; 41-49 b, 52; 66-71 b, 73; 1-4 pp.]
- sexual weakness: 24-50% of sexually active women are not satisfied with their full sexual life, pain during intercourse, decreased sexual desire [83; 796-806 pp.].

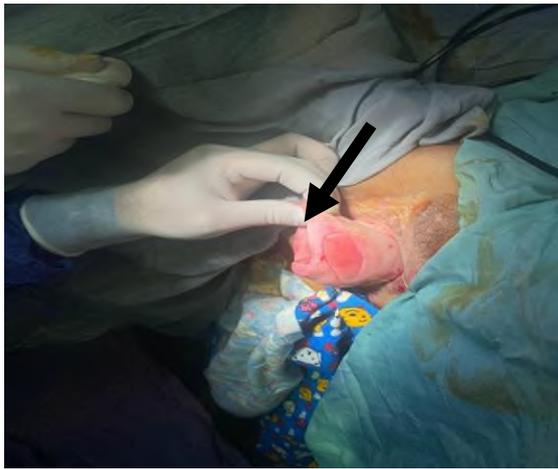
Sexual discomfort is usually caused by anatomical or emotional disorders caused by urinary or bowel symptoms.

Choosing the optimal treatment tactics, based on accurate and timely diagnosis of genital prolapse, degree of genital prolapse and clinical manifestations, this often remains an urgent task before not only gynecologists, but also doctors of related specialties - urologists, coloproctologists. [48; 118-122 pp.].

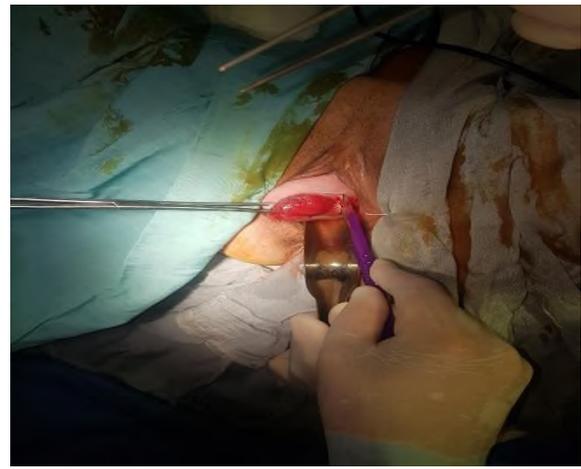
In global practice, general clinical examination, collection of complaints, anamnesis, expertise, gynecological (determining the degree of prolapse of the vaginal wall and uterus, intermediate condition) and rectal (determining the degree of posterior vaginal wall prolapse, rectocele size, anal sphincter condition) in global practice. researches, laboratory tests, ultrasound examination of pelvic organs, as well as combined urodynamic roentgenological, hysteroscopy, cystoscopy examinations are carried out according to the instructions. [49; 112-113 b, 5; 37-46 b, 29; 17-21 b, 55; 520 p.]

1.2. Various complications of genital prolapse

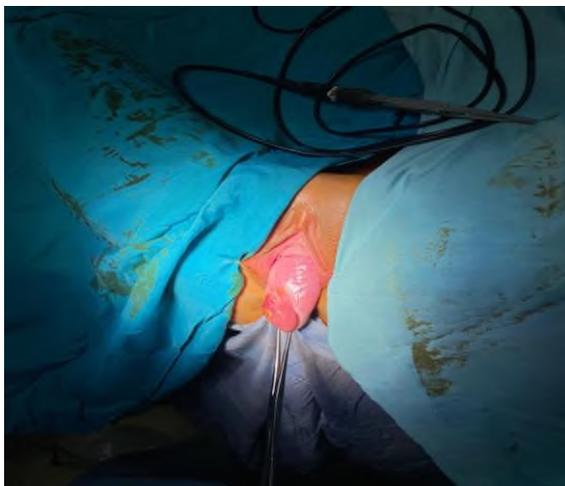
Genital prolapse in women is common, early manifestation of clinical symptoms (28%-39%) and in many cases it is related to recurrence of the disease after surgery, and the fact that the disease does not tend to decrease in statistics remains one of the urgent problems facing gynecologists today. In the later stages of the process, at the III-IV level, prolapse of the genitals caused by the violation of the normal anatomy and biocenosis of the vagina as a result of urogenital and anorectal dysfunction and other diseases related to prolapse: vaginal inflammatory diseases (colpitis, bacterial vaginosis) and cervical (cervicitis) trophic ulcers of the vaginal wall "decubitus", cervical elongation, chronic endocervicitis or two or more of these complications occur together. (Bulatov R.D. – 2003)



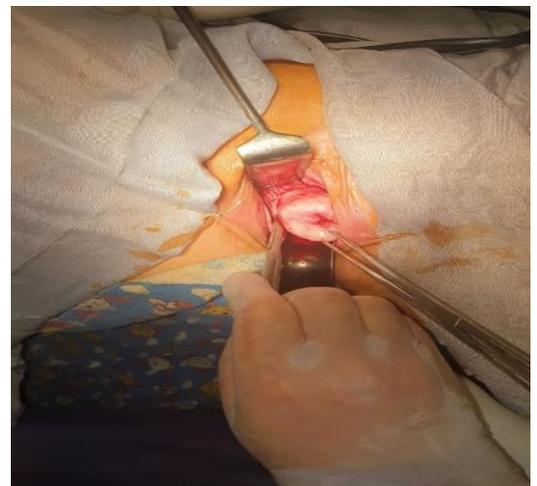
**Pic.Trophic ulcers of the vaginal wall
"decubitus"**



Pic. Trophic ulcers of the cervical



Pic.Cervical elongation.Endocervicitis



Pic.Vaginal wall and cervical trophic ulcer

§ 1.3. Recurrences, complications and their prevention after surgery for genital prolapse

When the first signs of genital prolapse appear, special exercises are usually recommended to strengthen the muscles of the pelvic floor with the help of special equipment [82; 2105-2111 b, 53; 28-35 b, 81; 117-126 b, 99; pp. 325-326]. In 1952, American obstetrician-gynecologist Arnold Kegel proposed a therapeutic training complex. Today, these exercises are not only included in the international practice of prolapse of pelvic organs I-II, but are also widely used in the rehabilitation of patients, in the postpartum period and during pregnancy. [80; 1488-1495 b, 79; 1523-1529 b, 25; 101-108 b, 20; 104 p.]

In 1985 S. Plevnik recommends using a vaginal cone, which he says is an effective device for strengthening the pelvic floor muscles. [93; 1523-1539 b.]. Currently, effective minimally invasive methods for correcting the early stages of pelvic organ prolapse have appeared, for example, biorevitalization, Plasmolifting [6; 12-18 b, 12; pp. 42-48]. Laser technologies for surgical treatment of I-II degree genital prolapse and postmenopausal and pharmacotherapy, genital atrophy after childbirth are becoming topical issues [6; 12-18 b, 12; pp. 42-48].

However, surgical treatment remains one of the most effective methods of treatment for moderate and severe disease. Nevertheless, the doctor does not always have the opportunity to perform surgical procedures due to the reluctance of patients to operate, the presence of severe concomitant somatic pathology [69; 789-798 b, 51; 32-34 b, 56; 8-10 pp.]. If there are contraindications to surgery, pessaries of various shapes and sizes made of latex rubber or silicone can be used [101; pp. 103-110].

Pessaries are a generally accepted method of conservative therapy for inguinal hernia. There are more than 100 types of pessaries that hold the internal genitals very well in the pelvic cavity and are usually used in the elderly and elderly [8; pp. 15-28].

The use of pessaries represents a minimally invasive conservative method of correcting this problem. However, as a result of their use, complications may occur: unpleasant odor, bleeding. There is information about urinary tract infection and erosion of the vaginal walls, the development of a chronic inflammatory process in the skin and mucous membranes of the vulva and vagina, and as a result, the formation of cellular atypia [101; 103-110 p.] Schtraub S. and co-author. (1992) found the development of vaginal and cervical cancer after 18 years of pessary use. [101; pp. 103-110]

As a result of the long-term presence of a pessary in the vagina, cases of fistula formation with neighboring organs have been repeatedly described [103; 579 pp.]. Linda Brubaker (1994), after studying the effectiveness and duration of pessary use, found that more than 30% of women did not use them again after 6 months of use, and various complications arose. [104; pp. 646-651].

Surgery is the only effective method of treatment of the disease in the III-IV degree, mainly in severe stages of genital prolapse. Despite the existence of a large number of single techniques and their modifications, no surgical intervention serves as the "gold standard" for the correction of this pathology [31; 774 b, 35; pp. 58-61]. The choice of surgical technique depends on the age of the patient, the shape of the prolapse and the degree of prolapse of the pelvic organs, the preservation of reproductive function and the preservation of sexual relations after the surgical operation, and several gynecological and somatic diseases.

Surgical treatment of prolapse and prolapse of the internal genital organs is the only effective treatment method without a few modifications and methods [8; 15-28 b, 21; 22 b, 57; 8-10 pp.]. Below, we will combine the most commonly used surgical treatment methods and divide them into groups (mainly according to the division proposed by V.I. Krasnopolsky). The first group includes operations that are carried out in the sagittal or diurnal direction and partially close the cornea. H. Rotter., A. Narrowing of Belov Kin in the form of an artificial solution. L.F. Neigebauer., Lefort [87; 293-303 b, 93; 1523-1539 p.] Urta colporrhaphy after cutting the scioliosis cavity and burning with sutures. A. Labhardt [91; 643-648 p.] Methods of notulic colpoperineocleisis are included.

Indications for partial closure of the vagina are uterine prolapse in asexual, elderly and elderly women [16; pp. 43-50]. One of the conditions for carrying out such an operation is the absence of pathological conditions in the uterus (36). These operations are now of historical significance, 1. From a technical point of view, they are simple, take less time, and are an easy operation for the patient, and are carried out mainly in women with somatic diseases. It has its own disadvantages, that is, it is difficult to carry out any manipulations in the uterus. It is not even possible to see the cervix [47; pp. 12-22]. In addition, the recurrence rate of Lebhardt surgery is high.

Operations in the second group include operations aimed at strengthening the pelvic floor. This type of operation is used as a primary and additional treatment method in

all types of surgical interventions involving descent and prolapse of internal genital organs.

When strengthening the pelvic floor, plastic surgery of the front wall of the vagina is performed first, then levatoroplasty and plastic surgery of the back wall of the vagina. Kin - There are many techniques for urinary tract fascia strengthening and cystocele plastic surgery. According to Magyp's modification, an oval flap is cut from the anterior wall of the groin, raised 1-2 cm depending on the wound, and slowly separated from the edges, the fascia legs are strengthened together and sewn to the uterine cavity with sutures [95; pp. 90-97]. In cystocele plastic surgery, the fascia is sutured over the bladder. The method of anterior colporrhaphy with separation and dissection of the kine fascia was proposed by Witt. For this purpose, the fascia of the urinary bladder is opened, that is, initially, the plate is divided into two sides along the upper line. Sung is duplicated on top of each other and reinforced with stitches. When the cystocele is significantly developed during the descent and exit of the internal genitals, the suture of the groin fascia should be carried out together with the reposition of the bladder, Zmakin K.N. applied. When performing this procedure, the most important thing is not to damage the urethral wall by creating a small flap while working in the area of the front wall of the vagina. In order to prevent scarred urethral syndrome as a result of extensive trauma to the urethra, and during reconstruction of the anterior wall of the vagina, the genital slit should not be too short. Colpoperineoplasty is performed in order to plasticize the pelvic wall. The basis of this operation is to cut the hanging part of the scrotum, to narrow the diaphragm of the scrotum, to restore the gap, that is, to create the pelvic floor [44; pp. 9-13]. Among the performed operations, the recurrence of the disease is from 6.2 to 32.8%, and errors are observed: after burning the vaginal wall too narrowly, swelling of the vaginal walls, recurrence of rectocele, signs of dyspareunia are formed; As a result of insufficient strengthening of the ureteral fascia, the receding anterior wall of the ureter is observed.

Operations in the third group include operations that fix the uterus and shorten and strengthen its ligaments. Uterine fixation and ligament shortening and strengthening

operations, Dollery Gilliam method, creating a tunnel with the right muscle of the front wall of Corinth, performing ventrosuspension of the uterus with a round ligament, and suturing under the aponeurosis. In order to prevent complications, Persianinov L.S. offered to close the uterus-bladder bag. This method has a relapse rate of 9.8%-33%. Kocher's operation - fixation of the uterus to the front wall of the Coryne. For this purpose, fixation sutures are sewn on the aponeurosis of the front wall of the uterus along the anterior and posterior surfaces of the uterus, and the surrounding area of the uterus is closed with the parietal cornea (the upper 1/3 of the uterus is located extraperitoneal). [12-18 b, 15; 43-18 b, 50; 60 b, 65; 52-54 b, 74; 1077 p.] Menge operation Hanging the round ligaments of the uterus on the front wall of the uterus. The relapse rate reaches 45.4%.

It is one of the most widespread operations in practice, despite the presence of several specific disadvantages. Unsuccessful completion of the above-mentioned operations is related to the procedure, i.e. moving the uterus from a non-physiological state to another state, fixing it in this state, and slightly restricting its movement [34].

In recent years, the combined correction of GP (fourth group) has been popularized mainly. [43; 4-38 b, 51; pp. 32-34]. Application of previously used surgical methods in new methodological fields (modern materials, endoscopic techniques, etc.). Braude I.L. In case of recurrence, the GP considers it appropriate to carry out operations in 2 stages - cesarean section and colpoperineoplasty with fixation of the uterus to the front wall of the uterus. Krasnopolsky V.I. Conical results were obtained by the method proposed by In order to maintain the physiological state of the uterus, to preserve the sexual and reproductive function of women, in the two-stage combined surgical treatment method, strengthening of the uterus-coccyx ligament with the help of an aponeurosis flap of the scrotum, and performing colporrhaphy and colpoperineorrhaphy with the scrotum in the 2nd stage. After such care, the total rehabilitation of patients was observed in 95.4%. Burchik V.I. (2000) proposed Manchester operation and laparoscopic round ligament reduction of the uterus combined with sterilization in one session. Next, our fifth group includes

operations with rigid fixation of the limbs to the bones and ligaments of the groin. Sergeev N.N, 1939 Kratts X, 1957 Fixation of the uterus to the promontorium. Richarson D.A. 1989 Sacro-spinal cervical fixation. Fixation of the body of the uterus to the pelvis ensures the permanence, stability and naturalness of its position. Jmilin S.V. and Porges R.F. (1994) sacrospinal fixation of the uterus in primary prolapse reduces the recurrence rate from 15.8% to 6.7%. Rigid fixation of the genitals often results in the termination of the enterocele. Dyspareunia, impotence during urination, detrusor instability, worsening of bowel movements after fixation of the genitals to the pelvic structures [56; 8-10 pp.].

The sixth group of operations includes one of the effective methods of treatment used by GPs, which is strengthening the fixation structure of the uterus, stitching the ligaments together, and doing transposition. The Manchester operation for the same purpose was the first, and A. Done by Donald in 1988. Effectiveness is achieved by using multi-component interventions such as attachment of cardinal ligaments to the anterior wall of the cervix, amputation of the cervical descent and lengthening. As a result of the significant shortening of the cardinal ligaments and proper performance of the surgical procedure, the body of the uterus is lifted up and takes an anteversion-antiflexion position. At the last stage, anterior colporrhaphy is performed to eliminate cystocele, urethrocele and urinary incontinence (90% of patients have a positive result for urinary incontinence). Orca colporrhaphy is also performed. The operation is carried out for the purpose of childbirth or to preserve the menstrual cycle, and for uterine prolapse of the 1st-2nd degree, if there is no indication for extirpation. However, the amputation of the cervix causes a 20-50% increase in the risk of miscarriage and premature delivery. The frequency of recurrence after Manchester operation is 2.3-16%. Most often, recurrences are observed in approximately 2.5% of cases as a result of the inability to return the uterus to its normal position. Conical results without long-term recurrences were obtained by Makarov O.V. (2000) combined Alexander-Adams round ligament reduction with Manchester operation[26; 3-5 pp.].

The seventh group of operations includes radical treatment of GP - various modifications of uterine extirpation. Extirpation with kinork is observed to be repeated in approximately 33% of cases, regardless of the radical nature of the kilim [10; 39-43 b, 57; 8-10 b, 44; 9-13 b, 60; 152-156 b,]. Insufficiency of the internal genital organs and prolapse of the vena cava are considered difficult to correct surgically and are very common in clinical practice. [30; 774 b, 48; 118-122 b, 50; 60 b, 63; 4-9 b, 76; 301-305 b, 75; 136 p.].

Currently, there are many transvaginal, laparotomic, combined, and synthetic methods of vaginal fixation for the treatment and prevention of vaginal prolapse after hysterectomy. In recent times, many synthetic materials are used in the fixation of the vagina. Information in the current literature shows that the use of synthetic materials leads not only to positive results, but also to the appearance of new types of complications. [2; 104-110 b, 4; 81-84 b, 74; 1077 b, 38; 1072 b, 72; 170-177 b, 58; pp. 48-52]. Many pelvic organ prolapse surgeons report a 5%-35% increase in complications after using synthetic materials. [68; 492-495 b, 67; 46-55, 43; 4-38 b, 55; 520 pp.]. The most common types of complications are erosion of the vaginal mucosa and complications of the synthetic material burn site. [22; 104-105 b, 23; pp. 25-28]. One of the long-term complications after synthetic materials is vaginal snechia, that is, hypertrophic ulcers due to incomplete healing of the wound. [17; pp. 51-56].

According to several authors, erosion of the vaginal mucosa after transvaginal use of synthetic materials is the most common, 7.6-10.6% [57; 8-10 pp.]. In some cases, scar changes and protrusions in the vagina lead to a sharp deterioration in the quality of life of women and long-term pain, discomfort and dyspareunia. [11; pp. 37-45]. In turn, the only surgical treatment is local removal of the implant burned area and erosion of the vaginal mucosa.

2010 International Association of Urogynecologists (International The Urogynecological Association (IUGA) and the International Continence Society (ICS) jointly released a new article and included a new term Implant-related complications in the classification of complications after synthetic materials. The

most important of the complications are erosion of the vaginal mucosa, erosion of the vagina with a synthetic implant, infectious complications, dyspareunia, chronic pelvic pain. [18; 22 b, 43; 4-38 b, 54; 66 pp.].

In February 2019, the US Food and Drug Administration (FDA) found that synthetic materials used in transvaginal intercourse to treat genital prolapse in 11,274 women caused erosion of the vaginal mucosa. Later, in April 2019, the FDA banned the sale of transvaginally used synthetic materials in the United States [57; 8-10 pp.].

In March 2016, the international European congress in Munich allowed the use of synthetic endoprotheses only based on specific guidelines, i.e. in apical prolapse, recurrent prolapse and, of course, prolapse of the genitals that cannot be eliminated with tissue repair. [56; 8-10 b, 87; 293-303 b, 17; pp. 51-56].

At the same time, surgical treatment of GP requires an individual approach not only to restore the position of anatomic organs, but also to the type and level of GP, the age of patients, the pathology of somatic and gynecological diseases, using various modifications. Various studies show that after surgical correction of penile prolapse, women have 30% repeat surgery [60; 152-156 p. 65; 52-54 b, 24; 64-66 p.], and according to other authors, this figure reaches 61.3% (Krasnopolsky VI, 2000; Radzinsky V. E. et al., 2002; Shull B. L. et al., 2000).

Thus, according to the literature, uterine prolapse and vaginal prolapse remain one of the urgent problems facing gynecologists today. Many methods of surgical treatment show that the recurrence of penile prolapse and vaginal prolapse after hysterectomy is not reduced when one or another type of private tissue or synthetic material is used. In turn, our vision means that we have set ourselves the goal of developing new surgical treatment methods and improving the effectiveness of this method in the treatment of severe prolapse of genital organs and vaginal prolapse after hysterectomy.

II CHAP. RESULTS OF PERSONAL RESEARCH AND COMPARISON AFTER THE SURGICAL PERIOD FOR GENITAL PROLAPSE.

2.1 Features of the clinical material of the study

The basis of the scientific work is the analysis of complications occurring in women with prolapse and the degree, duration and impact on quality of life of relapses after primary surgical treatment.

Our scientific studies were carried out in the gynecology department of Samarkand city maternity complex No. 3 and Samarkand city "Doctor Shifo Bakht" private clinic (scientific head - head of the department professor B.B. Negmadjanov). Methods of examination UTT analyzes and colposcopy examinations were conducted in the laboratory department of maternity complex No. 3 of Samarkand city. Laboratory analyzes were conducted in the laboratory department of the private clinic "Samarkand Doctor Shifo Bakht" in the city of Samarkand.

Histological examinations were carried out in the pathologoanatomical department of the SamMI clinic.

In our research, we determined the main principles of surgical treatment of genital prolapse:

1. Elimination of symptoms.
2. Restoring the normal anatomical relationship of all adjacent organs related to prolapse.
3. Restoring, improving and further protecting the functional tasks of pelvic organs.
4. Prevention of damage or deterioration of adjacent organs.
5. To reduce the frequency of relapses, to significantly improve the quality of life, and to use surgical technologies that provide the best functional results.
6. Use of minimally invasive methods in surgical treatment.

In the course of research, we studied the incidence rates of genital prolapse in our patients and the types of surgical procedures used (the task before us, point 1). (item 2.4 of the task) in addition, to study and evaluate the effect of transvaginal

hysterectomy in the case of using own tissue in eliminating the complications of genital prolapse (item 3 of the task). Indications and contraindications for surgical practice, taking into account the primary surgical practice and character, study of the post-surgical rehabilitation process in each individual patient, and assessment of short and long-term results after the surgical practice (task item 5)

The criteria for the inclusion of patients in the study are as follows:

- 1) According to the classification of III-IV degrees of uterine prolapse (POP-Q), which requires surgical intervention.
- 2) Age 46 and older
- 3) Scores without complications of extragenital pathologies.
- 4) Complications of genital prolapse (uterine decubitus ulcers, vaginal trophic ulcers, uterine elongation and cervical inflammation diseases)
- 5) Those who agreed to the methods of examination and surgical practice (consent letter (signature))

Criteria for excluding patients from the study:

- 1) Those who do not agree with the methods of examination and surgical practice.
- 2) Those who have a general somatic chronic disease (decompensation stage).
- 3) Low-quality tumors of the uterus and uterine appendages.
- 4) Diabetes
- 5) Disorders related to the blood coagulation system (laboratory tests and instructions of an anesthesiologist)

The effectiveness of the results before and after the surgery was evaluated during 1 year and after 3 years. The assessment was evaluated based on objective and subjective criteria.

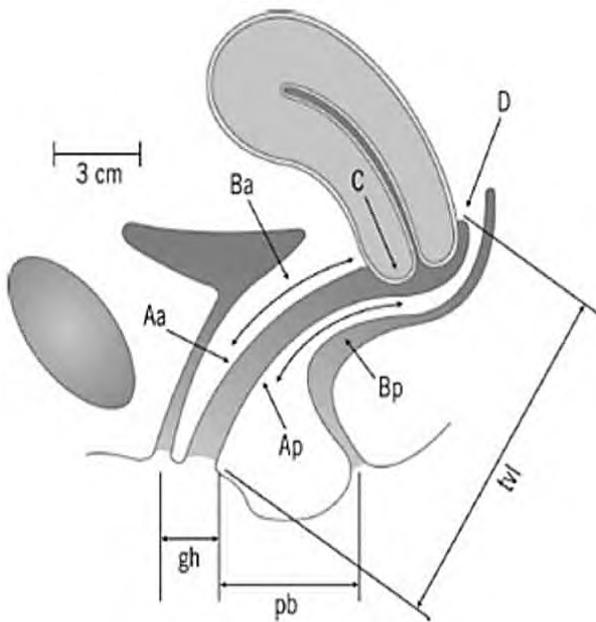
- 1) Patient complaints
- 2) Assessment of the quality of treatment efficiency by the patient
- 3) Examination of the patient, including vaginal examination at rest and during exertion;
- 4) Checking with the help of questionnaires.
- 5) PFDI-20 (PelvicFloorDistressInventory),

6) PFIQ 7 (PelvicFloorImpactQuestionnaire)

§ 2.2. Determination of the quality of life and the impact of complaints on daily life based on clinical and laboratory examination methods

Examination of patients presenting with genital prolapse was performed using standard general clinical and laboratory tests. Pre-surgical examination and preparation for surgical practice, optimal tactics of surgical practice and post-operative rehabilitation processes are carried out as a result of a complex approach to examination of patients. Clinical examinations include complaints of patients under investigation, general and gynecological examination, and their anamnesis. An important role in the examination methods is the collection of anamnesis. A detailed anamnesis collection, study of the causes of the disease played an important role. In the study of the patient, not only the complaints and characteristics of the disease, but also the quality of life, as well as social adaptability, living conditions and working conditions were studied.

In gynecological examinations, bimanual and rectal examinations were conducted using generally accepted methods. Visual examination of the external genitalia reveals a lack of pelvic floor (due to separation of the legs of the muscles that support the anus) and the opening of the genital fissure. The condition of the vaginal mucosa, the condition of the cervix, the condition of the internal genital organs, their location, shape, consistency, and behavior were determined. To assess the tone of the muscles responsible for lifting the posterior wall of the vagina and the anus, patients were asked to undergo artificial vaginal compression, which was scored as a positive result if tone was maintained. In addition to bimanual rectal examination, rectal examinations are performed in patients, through which rectovaginal columns and anal sphincter cholatin, rectal mucosa, signs of rectal anterior wall stretching, i.e., the formation of a pocket in the rectal anterior rectal part, indicate this rectocele. POP-Q (Pelvic Organ Prolapse Quantification), which is widely used today, was used to determine the degree of genital prolapse. (Picture-2.2.)



Pic.Determining the degree of pelvic organ prolapse

The severity of genital prolapse is determined by determining the deviation of the patient's genitals from the specified points in the measurement unit cm based on the following determination points. The use of POP-Q (Pelvic Organ Prolapse Quantification) classification in genital prolapse makes it possible to determine not only the degree of uterine prolapse, but also the degree of prolapse of the vaginal sac and anterior and posterior vaginal walls in post-hysterectomy cases.

Aa- the anterior wall of the vagina (located 3m proximal to the hymen), Va-the anterior wall of the vagina (between points S and Aa), this point is important in determining vaginal prolapse after hysterectomy.

Ar-vaginal back wall (located 3 cm proximal to the hymen), Vp is the back wall of the vagina, the middle of Ar and D points. C - anterior dome of the cervix (important in hysterectomy) D - posterior vault (cannot be determined after hysterectomy) TVL - total length of the vagina gh - genital slit Pb - distance is calculated.

Genital prolapse is not considered a life-threatening pathology, therefore, the reason for patients' referral to a doctor is a decrease in the quality of life, deterioration of social adaptation, and a violation of sexual life. Instructions for surgical practice include not only clinical examinations, gynecological and rectal examinations, but also special questionnaires (questionnaires) and help in choosing the correct instructions for surgical practice. Currently, one of the most commonly used questionnaires in the investigation of genital prolapse is the PFDI-20 (Pelvic Floor Distress Inventory Questionnaire), a question-and-answer questionnaire to determine the quality of life of patients in JAP and the PFIQ-7 (Pelvic Floor Impact

Questionnaire) to determine the impact of complaints on daily life. questionnaires are used. In addition, extragenital diseases of patients were studied in detail. Taking into account that the age of patients is 46 and older, complaints related to cardiovascular, nervous, digestive system diseases, musculoskeletal system diseases, endocrine and urological diseases, as well as venous diseases were studied in detail. Taking into account the purpose of our study, we paid special attention to collecting obstetric and gynecological anamnesis. In each patient, we studied the number of pregnancies, their duration, the delivery process (whether obstetric care was used, episiotomy or perineotomy, manual examination of the uterine walls after childbirth), complications during childbirth (interstitial rupture, cervical rupture, and vaginal wall rupture). We also paid attention to the birth weight and height of the patient's children. Of course, much attention was paid to complaints of patients directly related to genital prolapse and complications. The duration and course of the disease, the time of its various manifestations, the addition of additional complaints (for example, related to urinary and gas incontinence at rest or during physical exertion) were studied in detail. We also paid attention to the study of complaints related to pain in the lower part of the abdomen, bleeding from the genitals, difficulty urinating, gas and stool.

In addition, we studied in detail the size of the primary surgery for genital prolapse, the duration of the postoperative period, observed complications and relapses, the time of their recurrence and the nature of the postoperative period.

In the objective examination, a general examination, evaluation of the somatic state, as well as vaginal examination (bimanual) and functional tests were performed. During vaginal examination, we studied the degree of erection and/or descent of the internal genitalia when the patients were at rest and during arousal. With particular attention, the nature of recurrence after surgery for genital prolapse not related to removal of organs, additional complications, the condition of the cervix, and the nature and complications of recurrence after hysterectomy in genital prolapse were studied. In order to determine the impact of genital prolapse on the neighboring organs and the clinical signs of cystocele, rectocele, enterocele, as well as urethral

sphincter deficiency, we performed the "Tampon test", "cough" test or strengthening tests.

Complaints related to dysfunction of pelvic organs, quality of life and sexual function in patients were determined using special questionnaires. PFDI-20 (PelvicFloorDistressInventory), - Pelvic Floor Distress Inventory.

PFIQ 7 (PelvicFloorImpactQuestionnaire) - Assessment of the impact of pelvic floor dysfunction on psychological and social quality of life. PFDI-20 (PelvicFloorDistressInventory), Question and Answer.

The following questions and answers are evaluated by standard answers, YES and NO answers put on the questionnaire to the questions asked by the doctor. If the symptoms are not observed at all NO 0-point if the answer is "doesn't bother" 1-point "sometimes" 2-point "often" 3-point "often" 4-point is evaluated. Thus, it is evaluated from 0-4 points. If the patient does not know the exact answer to the question or hesitates, he uses answers that are close to the answer based on his own opinion (Table 2.2).

PFDI-20 (PelvicFloorDistressInventory)					
<p>Guide: Please answer the questions. Which of the following symptoms have bothered you in the last 3 months? If the symptoms are not observed at all NO 0-point if the answer is "doesn't bother" 1-point "sometimes" 2-point "often" 3-point "often" 4-point is evaluated. Thus, it is evaluated from 0-4 points. Thank you.</p>					
Pelvic Organ Prolapse Distress Inventory 6 (POPDI-6) (ПОПДИ-6)	No	Yes			
		1	2	3	4
1 Do you usually feel pressure in the lower abdomen?	0	1	2	3	4
2 Do you usually experience heaviness in the pelvic area?	0	1	2	3	4
3 Is there anything coming out of your vagina that you can feel or see?	0	1	2	3	4
4 Do you need to straighten the vagina or part of the rectum to completely empty the bowel	0	1	2	3	4
5 Do you usually have a feeling that your bladder is not completely empty?	0	1	2	3	4
6 Have you ever had to manually straighten your vagina to start urinating or empty your bladder completely?	0	1	2	3	4

Colorectal-Anal Distress Inventory 9 (CRAD-8)	No	Yes			
7 Do you feel the need to strain to have a bowel movement?	0	1	2	3	4
8 Do you have a feeling of incomplete bowel movement after defecation?	0	1	2	3	4
9 Have you had regular incontinence?	0	1	2	3	4
10. Have you had regular incontinence, such as diarrhea?	0	1	2	3	4
11 Are there cases of gas retention?	0	1	2	3	4
12 Are there any pains after defecation?	0	1	2	3	4
13 Do you have an unbearably strong urge to defecate?	0	1	2	3	4
14 Have you ever had part of your rectum come out through your anus?	0	1	2	3	4
Urinary Distress Inventory 6 (UDI-6)	NO	Yes			
15 Do you have frequent urination?	0	1	2	3	4
16 Do you have urinary incontinence due to a strong urge to urinate?	0	1	2	3	4
17 Do you have urinary incontinence when you cough, sneeze or laugh?	0	1	2	3	4
18 Do you lose a small amount of urine (drip)?	0	1	2	3	4
19 Having trouble emptying your bladder?	0	1	2	3	4
20 Do you feel pain or discomfort in the lower abdomen or genitals?	0	1	2	3	4

Calculation: the arithmetic mean in each group of questions is calculated (spread from 0 to 4), the value is multiplied by 25, and the spread of indicators is 0-100 points.

PFIQ-7 (Pelvic Floor Impact Questionnaire)

Guideline: Some women find that symptoms associated with bladder, bowel, or uterine prolapse affect their daily activities, relationships, and emotions. Place an "X" next to the answer that best describes the symptoms you have experienced in the past 3 months. Please make sure you tick all 3 boxes before each question

	How often the symptoms associated with -- affect you қилиши	"bladder or urine" ☑	"Intestine or rectum"	"Uterine or pelvic organs" тушиши"
1	Ability to do housework (cooking, cleaning, washing)?	- Never - Sometimes - Most of the time - Often □	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
2	Ability to walk, swim or exercise?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
3	The ability to attend cinemas, concerts?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
4	Ability to travel by car, bus more than 30 minutes from home?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
5	Participating in social activities outside the home?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
6	Emotional state (anxiety, depression, etc.)?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often

7	Do you feel disappointed about something?	- Never	- Never	- Never
		- Sometimes	- Sometimes	- Sometimes
		- Most of the time	- Most of the time	- Most of the time
		- Often	- Often	- Often

Calculation: all questions correspond to the following scale of points: never - 0; sometimes - 1; often-2; often-3. Sum of points for 7 questions in the "bladder or urine" column. Sum of points for 7 questions in the "Intestine or Rectum" column. Sum of points for 7 questions in the "Uterine or Pelvic Prolapse" column. It is necessary to calculate the arithmetic mean of the obtained result (spread value from 0 to 3), then multiply this number by 100 and divide by 3 to get a value from 0 to 100. (table 2.3)

Thus, the subjective severity of the symptoms, their impact on the functional, psychological and social components of the quality of life were evaluated. The PFDI-20 and PFIQ-7 questionnaires included an assessment of the severity of symptoms caused by penile prolapse, a subjective assessment of the severity of symptoms of lower gastrointestinal dysfunction and urinary disorders.

Research laboratory methods:

- 1) Clinical blood tests
- 2) Blood biochemistry analysis
- 3) General urine analysis
- 4) RW-blood analysis
- 5) Hepatitis B, C blood transfusion
- 6) HIV blood analysis
- 7) ECG
- 8) Coagulogram

UTT inspection methods.

The UTT test was performed on a Mindray DC apparatus. UTT examination was performed transvaginally and abdominally. UTT examination was used to check the presence of uterine prolapse, genital prolapse, and the presence of adjacent organs, cystocele, or rectocele. Comprehensive examinations of all patients in the study were carried out in several stages. Before surgery in the 1st stage (selecting the surgical procedure by determining the anatomical abnormalities and the nature of the disease), 3-5 months after the 2nd stage (to evaluate the effectiveness of the surgical procedure) and after 3 years (to evaluate the long-term results of the surgical procedure).

Colposcopy

In order to diagnose diseases of the cervix and the extent of surgical treatment, colposcopy was performed on female patients. Colposcopy was performed using a colposcope. This examination method allows to diagnose the condition of the cervix, to obtain accurate information about the pathological processes occurring in the uterus and vaginal mucosa, and to assess them. In a number of cases, during colposcopy, bacteriological examination and materials for cytology were carried out, which not only allows timely diagnosis of severe pathologies of the cervix and precancerous diseases in patients, but also makes it possible to make a decision on radical surgery

§ 2.3. Modification of the transvaginal surgical method in the prevention of genital prolapse and vaginal prolapse after hysterectomy in the recurrence and complications of genital prolapse

In the main group of patients under study, we performed a specially designed modification surgery to prevent recurrence of genital prolapse and vaginal prolapse during hysterectomy performed through transvaginal access in case of recurrence of genital prolapse.

Size of surgical practice.

- 1) Hysterectomy through the vagina
- 2) Reinforcement of the Qin pouch with improved modification using its own tissues.
- 3) Previous colporrhaphy
- 4) Posterior colpoperineolevatoroplasty

Anesthesia - spinal anesthesia

Stages of the operation: Stage 1. The patient is placed on the operating table in a lithotomy position (with the legs open, special restraints are placed). External genitalia and vagina are treated with 70% ethyl alcohol and 2% iodine solution. Special sterile drapes are placed on the surgical field. The vagina is opened with the help of mirrors, and the cervix is fixed with Dwayne's forceps and slightly pulled forward and down (Fig. 2.3). (Fig. 2.4) After that, the peritoneum of the uterus-urinary sac, which is identified at the same time, is grasped and opened with Mikulich clamps.

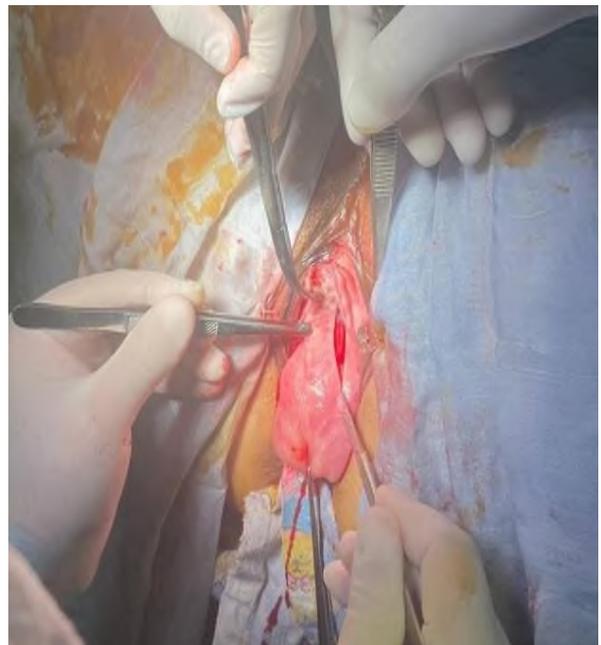


Figure 2.3.

Figure 2.4.

Stage 2. The uterus is removed from the abdominal cavity with the index finger of the right hand, brought through the peritoneal cavity under the intestinal surface of

body and fixed on the Musso clip.

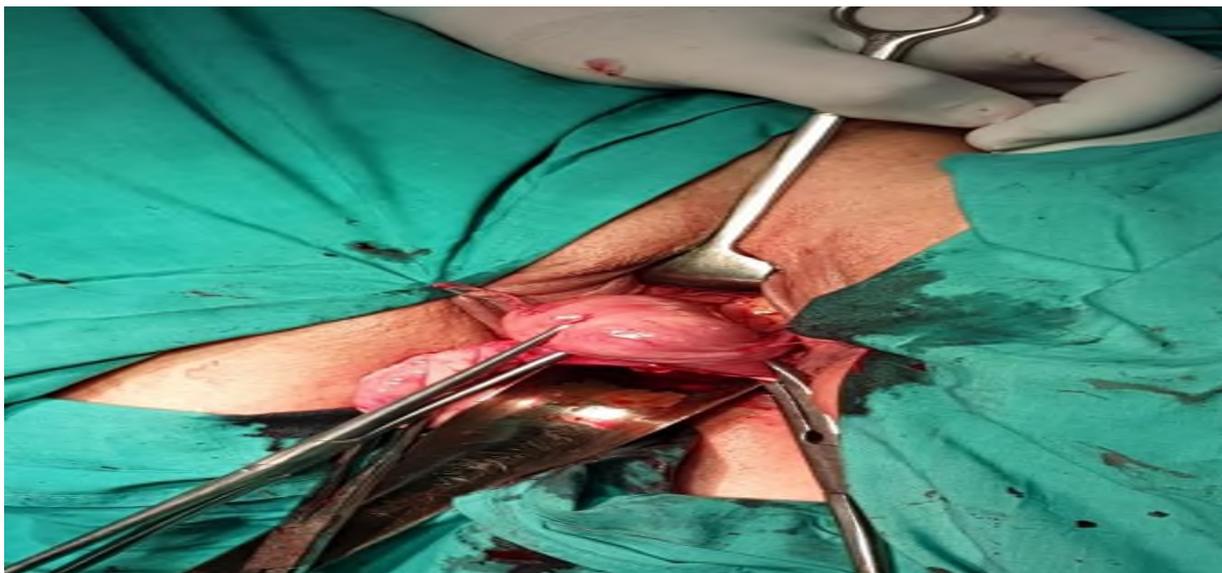


Figure 2.5

From the left side, the fallopian tube, ovarian special ligaments and uterine round ligament are removed and cut with Kocher clamps. The body of the uterus is pulled to the right side, and the uterine vessels extending along the left edge of the uterus are cut with Kocher forceps. The same methods are carried out on the opposite side. The peritoneum cavity of the recto-uterine space is separated, and the recto-uterine cords are grasped and cut using Kocher (separately). (picture 2.5)

The back of the vagina, which holds the uterus intact, is cut with a scalpel, and clamps are replaced with ligatures. The bladder is lifted up. Reinforcement of the abdominal cavity is performed from the abdominal wall. The essence of this method Suture starts from the inside, and the peritoneum, umbilical and iliac-uterine ligaments, and vaginal walls are sutured together using "X"-shaped sutures. (Figure 2.6) This, in turn, consolidates the operative process, shortens the time of the surgical procedure and helps to reduce the amount of blood loss. A total of 6-8 "X"-shaped sutures are placed separately. As a result, a strong frame is formed in a horizontal position in the form of a "bubble". An artificial hole with a diameter of 2.5-3.5 cm is made in the middle of the carcass, and peritonization is not performed. (Fig. 2.7).

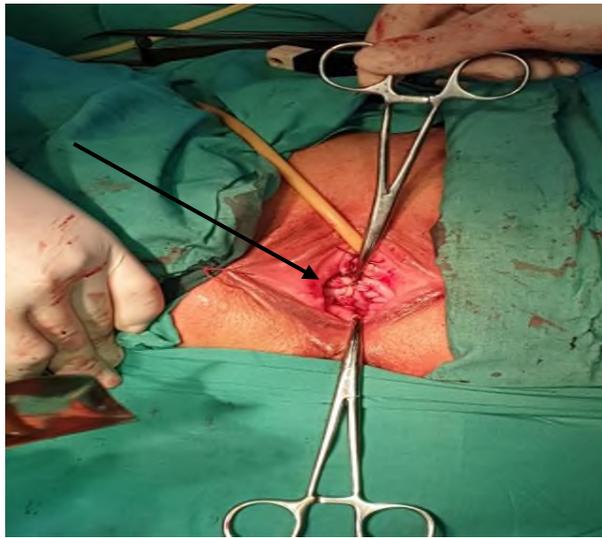


Figure 2.6

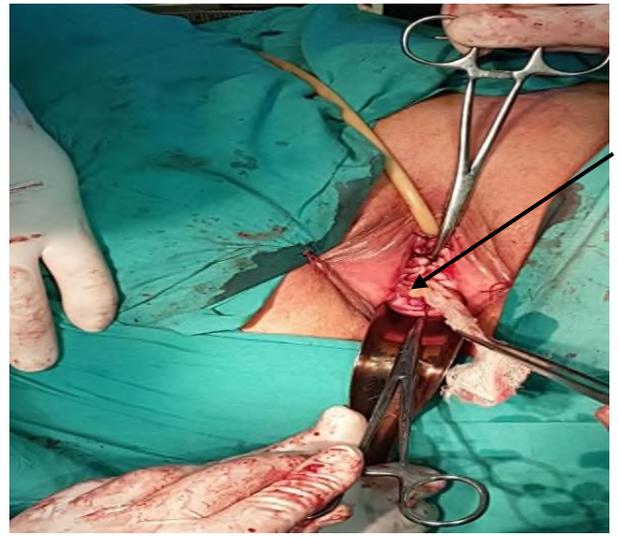


Figure 2.7

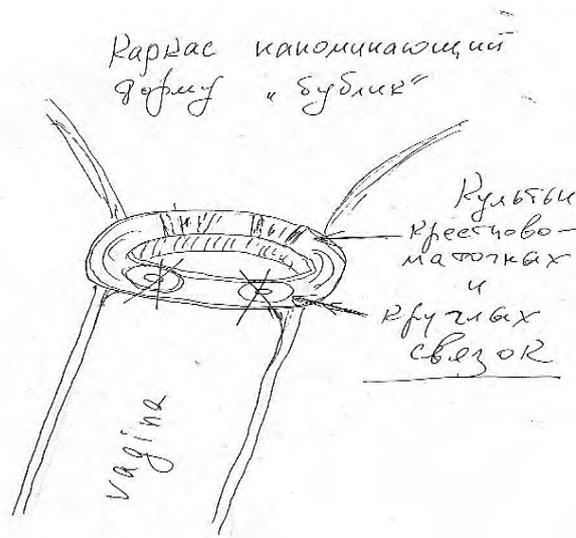


Fig-2.8.

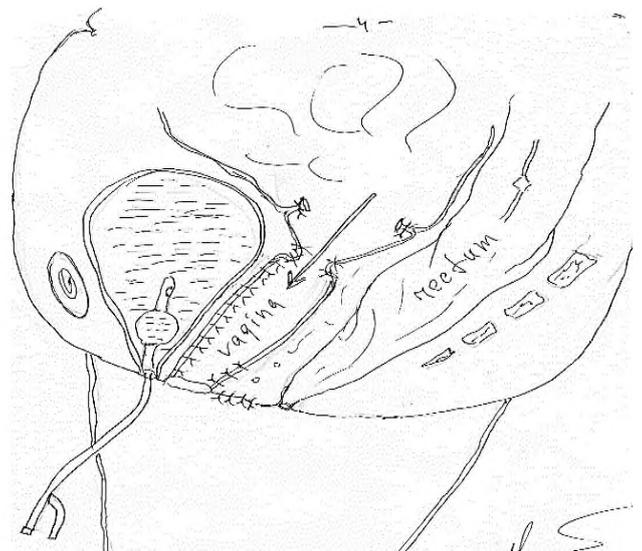


Fig-2.9.

- 1) Urinary system improves, dysuric symptoms and urinary incontinence are not observed.
- 2) Patients wake up early and go home in 4-5 days.
- 3) Recurrence and its complications are not observed due to the solid "bubble"-like framework located in the proximal part of the created artificial vagina, and especially the formation of enterocele is prevented. In addition, X-shaped sutures

and artificial drainage improve the flow of wound fluid between the tissues, which leads to faster healing of the postoperative wound.

4) Due to the removal of old scars, the injury site is better opened and the burden of old inactive scars improves regeneration.

III CHAP Results of personal research and comparison after the surgical period for genital prolapse.

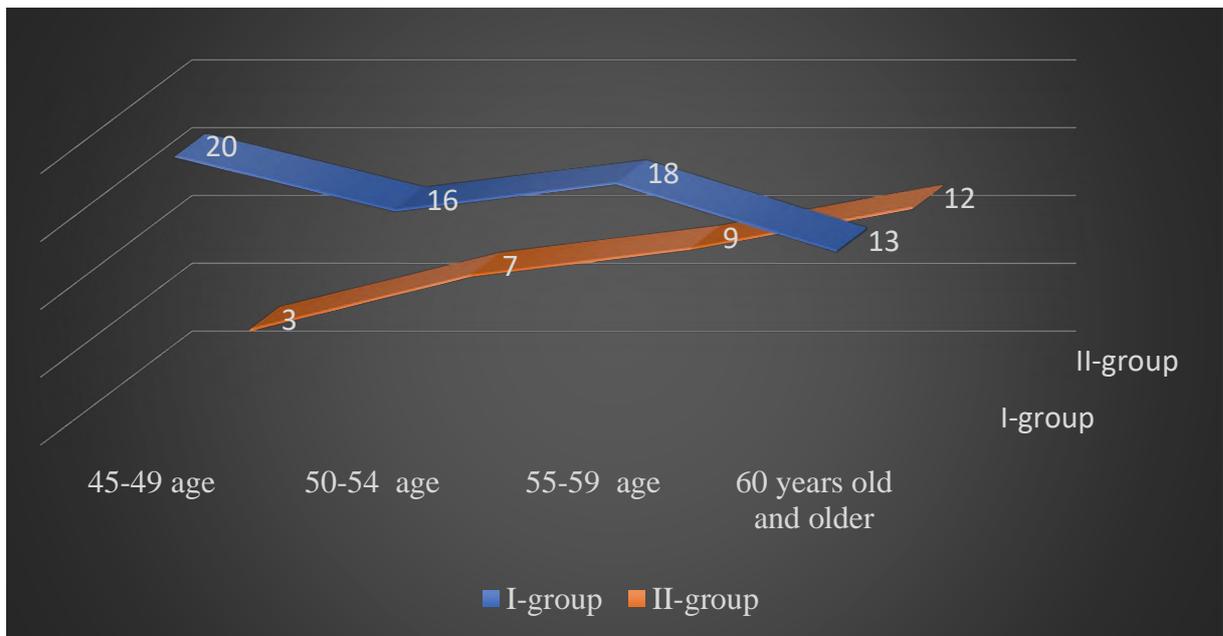
The surgical practice of leaving the vagina open after improved transvaginal hysterectomy and creating a "horizontal public"-like reinforced frame through continuous reinforcement with "X"-shaped sutures in the recurrence and complications of genital prolapse in women allows not only to achieve the advanced technical result, but also genital helps to prevent recurrence of prolapse and its complications, to improve early and long-term results after surgery in patients of any level. In order to study the effectiveness of the developed method, a comparative study of the first period after the operation and the expected results in the future was conducted.

§ 3.1. Clinical characteristics of patients under study

All patients presenting with complications and recurrence of genital prolapse were carefully examined. Their age, disease anamnesis, complaints, degrees of genital prolapse, comorbidities, performed primary surgery, postoperative course, recurrence, observed complications, gynecological examinations, special questionnaires, special examinations and instrumental examinations were conducted.

Distribution of study groups by age

The age of patients ranges from 46 to 68 years. 29.9% of 67 patients were 45-49 years old, 23.9% were 50-54 years old, 26.7% were 55-59 years old, and 19.5% were 60 years old and older. 9.6%, 22.6% under the age of 50-54, 29.4% under the age of 55-59, 38.7% over the age of 60. The average age in the main group is 52 ± 3 years, in the comparison group it is 56 ± 4 years. There were no significant changes in age groups.



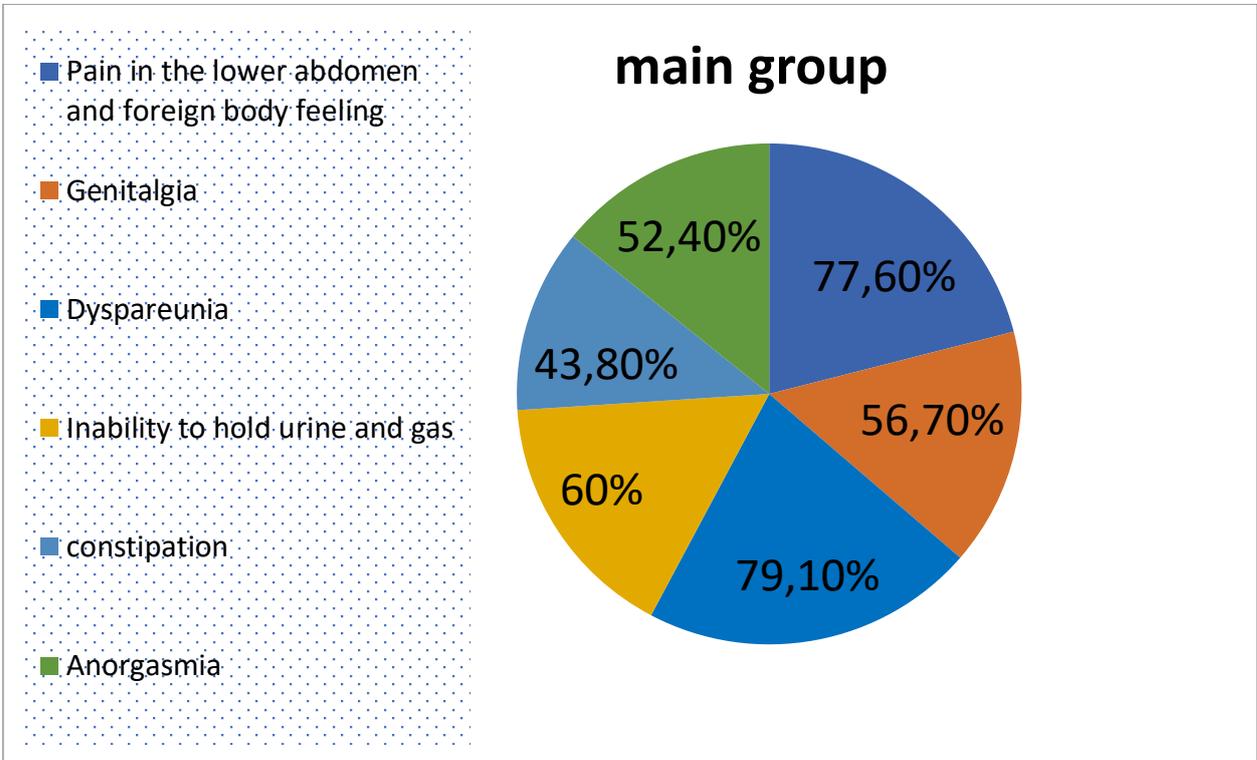
Increased intra-abdominal pressure due to heavy physical exertion plays a significant role in the pathogenesis of genital prolapse, therefore, we focused on studying professional activities, social conditions and living conditions of patients with genital prolapse levels and complications (indicators are shown in Table Features of professional activity and living conditions of patients with complicated forms of genital prolapse almost half of 46.7% of patients are significant when analyzing work performance it was noted that he was subjected to physical stress. At the same time, patients in all groups were more physically active in everyday life than in professional activities. This may be due to the fact that our examined patients are mostly of retirement age, and this in turn may be due to the lack of age appropriateness.

	I group (n=67)		II group (n=31)		Total (n=98)	
	aбс.	%	aбс.	%	aбс.	%
Availability of physical activity at home	14	20,9	6	19,4	20	20,4
The presence of physical activity at work	16	23,9	9	29	25	25,5
Physical activity at home and at work	24	35,8	7	22,6	31	31,7

There is no physical activity	13	19,4	9	29	22	22,4
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In the next step of our study, the main complaints of patients presenting with genital prolapse were studied and analyzed.

In the main group, 52 patients (78.4%), 20 (64.8%), 53 (79.10%), 23 (74.2%), 23 (74.2%), 23 (74.2%) Genitalgia people (56.7%), 15 people (48.3%), Group I with complaints of urinary and gas incontinence 40 people (60%) 16 people (53%), 29 people with constipation (43.80%) 11 (37.50%) patients made up the main group of patients. In addition, 14 (46.40%) of 35 people (52.40%) of the I-group complain of anorgasmia. (Figure 3.2)



Of course, one of the main factors that determine the further tactics of treatment of patients with genital prolapse is the extragenital pathology that occurs in them. In addition, many diseases of this group can be a risk factor for genital prolapse due to increased abdominal pressure.

The structure of somatic diseases in the anamnesis of women with genital prolapse.

Table-3.2.

Childhood diseases	57	85,1	24	77,4	81	82,6
ORVI	42	62,7	21	67,4	63	64,3
Anemia	36	53,7	19	61,3	55	56,1
Upper and lower respiratory tract diseases	41	61,2	14	45,2	54	55,1
Kidney diseases	29	43,3	14	45,2	43	43,9
Diseases of the gastrointestinal tract	43	64,2	17	54,8	60	61,2
Cardiovascular diseases	21	31,3	9	29,3	30	30,6
Obesity	16	23,9	7	22,6	23	23,5
Expansion of varicose veins in the legs	41	61,2	12	38,7	53	54,1

As can be seen from the given table (Table-3.2.), it can be seen that the nature and frequency of somatic diseases are almost the same in both groups. Of course, childhood diseases and STDs are common in both groups, as well as other gynecological diseases. But from the cardiovascular diseases, which are considered as risk factors in the pathogenesis of genital organs, hypertensive diseases and ischemic heart diseases (21(31.3%) in the main group) are in the comparison group (9(29.3)). At the same time, diseases of the respiratory tract, which are the main risk factors for prolapse of the genitals, make up 41 (61.2%) and diseases of the gastrointestinal tract make up 43 (64.2%). In addition, the expansion of leg veins is 41 (61.2%).

Among all patients, menarche began at an average age of 12-14 years. According to the age of the onset of sexual activity, the patients were divided as follows: in the age range of 19-23 years, in the age range of 20-24 years, the average age of the onset of sexual activity in these age groups is considered to be almost normal, which means that there is no significant relationship between the onset of sexual activity and the development of internal genital prolapse. allows you to

confirm with confidence. Almost half of all patients (32(47.8%)) (13(41.9%)) had sexual activity during the examination.

When analyzing the obstetric anamnesis of the patients, the number of single births 13 (19.10%) two or more births 40 (59.70) Artificial abortions 14 (20.89%) Births with macrosomia 24 (35.8) Births with breech birth 5 (7 .46%).

Analyzing the transitional nature of childbirth, it can be said with confidence that in 60.2% of cases, midwifery assistance was required or complications arose during childbirth, which later became one of the reasons for the descent and prolapse of the internal genitals. Episiotomy and perinetomy were performed in 15 (22.70%) of the patients, while 14 (21.2%) had different degrees of tearing of the crotch. In addition, 6 (8.80%) also had a cervical tear. (Figure 3.4)

It should be noted that the third group of patients had fewer birth complications during childbirth. Such complications, i.e. episiotomy and hysterectomy or perinetomy, as well as the use of birth surgery operations such as cervical tearing, can lead to serious consequences and significantly lead to severe forms of genital prolapse.

According to the classification proposed by POP-Q, prolapse of the genital organs, when analyzing the character of the genital organs of the patients, 16 (23.88%) had I and II miscarriages, and 35 (52.23%) III and IV miscarriages.) forms. In addition, cystocele and 26 (38.80%) and 9 (29.03) severe frontal and back wall fractures make up 28 (41.79%) of the birds. (Figure 3.5)

3.2. Volume of primary surgery performed (recurrence and complications)

When studying the history of the primary surgical operation of the patients under study, 46 out of 67 patients, 68.65% of the patients, underwent a surgical operation with prolapse of the genitals. According to it, 19 out of 46 patients, 41.30% underwent transvaginal amputation for cervical elongation and anterior vaginal wall descent, while 14 patients underwent anterior-posterior colpophy with anterior and posterior vaginal wall descent, 30.43% in 7 patients. 15.21% underwent ventrofixation of the uterus. 13.04% of 6 had a history of III-degree rupture of the

perineum, anal sphincter failure, anal sphincter repair and back colpopereniolevatoplasty.

We then analyzed the recurrence of the disease after primary surgery, i.e., the time interval between recurrence of genital prolapse after primary surgery in the main group of patients under our study



Fig 3.6. Elongation of the Cervical



Figure 3.7. Relapse of uterine wall prolapse.



Figure 3.8. III degree intermediate tear

We divided the time of recurrence of the disease into 3 groups, i.e. according to it, group 1 is the recurrence of the disease from 1 to 3 years, "early" appearance of clinical signs, group 2 is the recurrence of the disease from 3 to 5 years, "slow"

appearance of clinical signs . Group 3 - the recurrence of the disease is more than 5 years and "late" appearance of clinical signs. According to him, among the patients, 11 (23.91%) had early signs of the disease, while in the 2nd group of patients, 19 (41.30%) of the patients showed signs of the disease slowly. In 16 (34.78%) patients, it can be seen that the recurrence of the disease was evident late (Figure 3.9). As can be seen from the diagram, the frequency of recurrence of genital prolapse is mainly observed in patients of the 2nd group. Recurrence of prolapse of the genitals is more common in 3 to 5 years.



Figure 3.10. "Decubitus" wound from the uterus



Figure 3.11. Vaginal trophic tissue



Figure 3.12. Elongation of the uterus

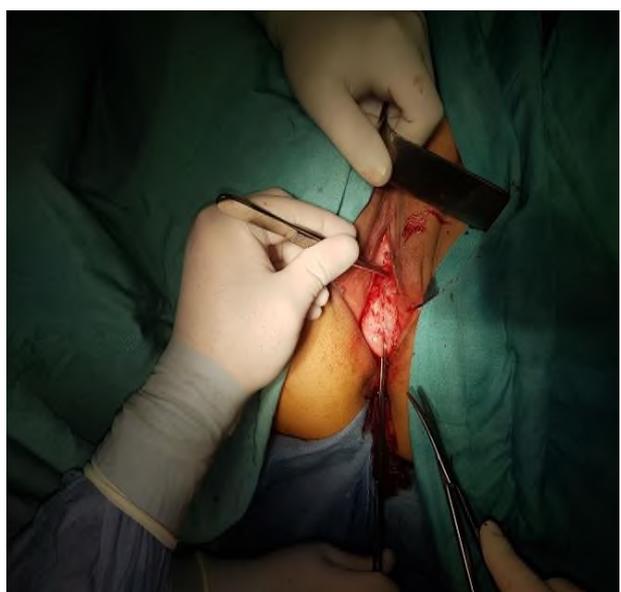


Figure 3.13. Cervical endocervicitis

§ 3.3. Evaluation of short-term and long-term outcomes after surgery for recurrence and complication of penile prolapse

Prolapse of the genital organs in the later stages of III-IV urogenital and anorectal dysfunction due to disruption of the normal topography and biocenosis of the vagina and other additional complications related to prolapse: inflammatory diseases of the cervix (cervicitis), vaginal wall and uterine trophic "decubitus", wounds

In addition, cervical elongation, chronic endocervicitis or two or more of these complications may occur together.

Among the patients under our study, when the complications of genital prolapse were studied, 19 (28.35%) of the main group had uterine "Decubitus" ulcers, 21 (31.34%) had cervical elongation, and 9 (13.43%) had pelvic floor ulcers. and 17 (25.37%) were diagnosed with inflammatory diseases of the cervix. At the stage of ambulatory preparation, such patients are usually given various ointments and antibiotic therapy. In this regard, before the operation, patients undergo a course of therapeutic treatment.

3.3. Evaluation of short-term and long-term results after surgery for penile prolapse recurrence and complications.

The women under our supervision were given general clinical and laboratory examinations at the 3rd maternity complex in Samarkand city and at the private clinic "Samarkand Dr. Shifo Bakht", after the examination by an anesthesiologist, therapist and cardiologist, the patients were transferred to the gynecology department of the "Samarkand Dr. Shifo Bakht" clinic. The patients of both groups were selected in such a way that they could be compared in terms of age, somatic level, gynecological diseases and anamnesis.

The somatic level, reproductive anamnesis, gynecological diseases, primary surgical operation and the duration of the subsequent period, post-surgical data and their characteristics were studied. Information on long-term and short-term results, incapacity for work, complaints, the quality of life of patients, the impact of

complaints on daily life, and the sex life index in the period after the surgical operation, using special questionnaires (PFDI-20, PFDI-7) and gynecological examinations from 1 month to 3 years. studied. .

The duration of the surgical operation in the method proposed by us to eliminate the recurrence and complications of genital prolapse is from 45 to 60 minutes, that is, on average, it is 52.5 ± 1.5 minutes. In the traditional method of hysterectomy through the abdomen or vagina, this indicator includes time from 80 to 100-110 minutes, on average 95 ± 2.5 minutes. It is important to note that, considering the fact that the recurrence of genital prolapse is mainly done by older patients, our patients spend almost half the time on the operating table compared to the control group, and this, in turn, has a positive effect on the amount of blood lost and the patients' psycho-emotional condition. Time of surgery brevity and maintenance of constant communication with patients during surgery improves the psycho-emotional condition of patients. This is especially evident when the hysterectomy is performed by the transvaginal method, compared to the hysterectomy performed through the abdominal route, the patients get up early and the pain index is much lower.

The volume of blood loss during surgery is up to 200-300 ml, that is, on average, up to 250 ± 10 ml.

Table 4.1.

Descriptions	time
Continuity of surgical operations, min.	$52,5 \pm 1,5$
Total blood loss, ml	200-300 _{MJI}
Psycho-emotional condition	90%
Associations	-

Additional complications and aggravations during intraoperative (surgical operation) were not observed in the main group. Urinary tract injury was observed in 6.45% of 2 patients in the control group. In addition, during hysterectomy with abdominal access, 3 (9.6%) patients had daily spasms and regurgitation.

In order to confirm the effectiveness of the improved method for the prevention of vaginal prolapse in traditional abdominal and transvaginal hysterectomy for genital prolapse, we conducted an analysis of various characteristics of early menopause after surgery. The duration of the operation, the size of the incision, the maximum reduction in body temperature, tissue recovery, the nature of drainage in the field, the number of women with cultitis and infiltrates, the days of hospital stay after surgery and the response time were compared.

The period after the surgical operation improves tissue regeneration and nutrition, and this, in turn, speeds up the recovery of the wound site, allows patients to get up early, and completely prevents the formation of cysts and infiltrates in the tissues. Tissue repair improved in 88.1% of patients, which is almost half as much as the comparison group. In addition, the effectiveness of our method improves the nutrition and regeneration of the tissues, and prevents the formation of culture and infiltrate in the early stages after surgery.

Table 4.3.

№	Changes in dynamics			
		After the operation		
		aбс	M(%)	M
1	Tissue regeneration and nutrition	59	88,1	6,0
2	Cultite, infiltrate	0	0,0	0,0
3	Psycho-emotional condition	61	91,0	6,0
4	Reply (days)	4,5	6,7	2,5

5	Drainage feature in the field	0	0,0	0,0
6	Relapse of the Qin desert	0	0,0	0,0

Note: * - reliability of differences in comparison with the control group (*-P<0.05; **-P<0.01; ***-P<0.001)

The decision on surgical technique, size and anesthesia was made individually for each woman by the general council. Abdominal anesthesia was used. In order to eliminate the complication of recurrence of sexual organs caused by the size of the surgical operation, patients were given 1 course of therapeutic treatment before the surgical operation on the basis of prophylaxis.

It was observed that body temperature of 14 patients (20.9%) remained up to 37.3°C for 2-3 days during the post-surgery hospital follow-up. It was observed that this indicator is somewhat higher in patients who underwent surgery in the traditional method, that is, in 23 (74.2%) patients, the body temperature increased from 37°C to 38-38.5°C. Especially considering the age of our patients, during abdominal hysterectomy, this temperature increased to 39°C and the duration of antibiotic therapy was observed.

The developed method, i.e. the absence of early complications after surgery and patients getting up early, most of our patients - 60 (89.5%) stayed in the hospital for 4-5 days after surgery. Patients stay in the hospital for 8-10 days after the traditional surgical procedure, and for more than 10 days if the surgical procedure is carried out through the abdominal route. This means almost half of our patients in the main group. In conclusion, taking into account the age and anamnesis of the patients, the main group of patients will be discharged from the hospital earlier, which will have a good effect on their psycho-emotional condition.

The introduction of the improved method of strengthening the vagina, which is used to eliminate recurrence and complications of the genitals, allows to significantly reduce the duration of the operative intervention, the amount of blood lost, the complications encountered after the surgical operation, as well as the days in bed for patients. Especially in patients undergoing repeated surgery with genital prolapse, it

serves to eliminate the fear of recurrence and significantly improve their psycho-emotional condition.

Evaluation of long-term results after surgery

It was studied in the period after the surgical operation performed in the patients, i.e. 6 months, 12 months, 24 months after the patients left the hospital. Almost all of our women who underwent surgery with the improved method were satisfied with the results of the operation. Complaints related to dysfunction of the pelvic organs, quality of life and sexual function in the post-surgical period from the patients were not identified during the survey and examination. After the surgical operation performed with the improved method, clinical signs of the process of tightening of the abdominal cavity, dysfunction of the partner organs, and sexual dysfunction were not detected.

Complaints related to pelvic organ dysfunction, quality of life and sexual function in patients were determined using special questionnaires. These are: PFDI-20 (PelvicFloorDistressInventory) - Pelvic Floor Distress Inventory.

PFIQ-7 (PelvicFloorImpactQuestionnaire) - assessment of the impact of pelvic floor dysfunction on psychological and social life. A questionnaire to determine the quality of life and the impact of complaints on daily life.

PFDI-20 (PelvicFloorDistressInventory) Q&A.

The following questions and answers are evaluated by standard answers given in the questionnaire, YES and NO answers to the questions asked by the doctor. If the symptoms are not observed at all, NO is 0-point, if the answer is Yes, it is evaluated with 1-point "does not bother", "sometimes" with 2-point, "often" with 3-point, and "frequently" with 4-point. Thus, it is evaluated from 0-4 points. If the patient does not know the exact answer to the question or hesitates, he uses the answers that are closer to the answer based on his own opinion.

Table 4.4.

PFDI-20 (PelvicFloorDistressInventory)

Guide: Please answer the questions. Which of the following symptoms have bothered you in the last 3 months? If the symptoms are not observed at all NO 0-point if the answer is "doesn't bother" 1-point "sometimes" 2-point "often" 3-point "often" 4-point is evaluated. Thus, it is evaluated from 0-4 points. Thank you.

Pelvic Organ Prolapse Distress Inventory 6 (POPDI-6) (ПОПДИ-6)	No	Yes			
1 Do you usually feel pressure in the lower abdomen?	0	1	2	3	4
2 Do you usually experience heaviness in the pelvic area?	0	1	2	3	4
3 Is there anything coming out of your vagina that you can feel or see?	0	1	2	3	4
4 Do you need to straighten the vagina or part of the rectum to completely empty the bowel	0	1	2	3	4
5 Do you usually have a feeling that your bladder is not completely empty?	0	1	2	3	4
6 Have you ever had to manually straighten your vagina to start urinating or empty your bladder completely?	0	1	2	3	4
Colorectal-Anal Distress Inventory 9 (CRAD-8)	No	Yes			
7 Do you feel the need to strain to have a bowel movement?	0	1	2	3	4
8 Do you have a feeling of incomplete bowel movement after defecation?	0	1	2	3	4
9 Have you had regular incontinence?	0	1	2	3	4
10. Have you had regular incontinence, such as diarrhea?	0	1	2	3	4
11 Are there cases of gas retention?	0	1	2	3	4
12 Are there any pains after defecation?	0	1	2	3	4
13 Do you have an unbearably strong urge to defecate?	0	1	2	3	4
14 Have you ever had part of your rectum come out through your anus?	0	1	2	3	4
Urinary Distress Inventory 6 (UDI-6)	NO	Yes			
15 Do you have frequent urination?	0	1	2	3	4
16 Do you have urinary incontinence due to a strong urge to urinate?	0	1	2	3	4
17 Do you have urinary incontinence when you cough, sneeze or laugh?	0	1	2	3	4
18 Do you lose a small amount of urine (drip)?	0	1	2	3	4
19 Having trouble emptying your bladder?	0	1	2	3	4
20 Do you feel pain or discomfort in the lower abdomen or genitals?	0	1	2	3	4

Calculation: the arithmetic mean of each group of questions is calculated (ranging from 0 to 4), the value is multiplied by 25, and the spread of indicators is 0-100 points.

The question-and-answer questionnaire below includes 3 stages in assessing pelvic organ dysfunction. At the 1st level, complaints related to the genitals are studied, at the 2nd level, complaints related to the gastrointestinal tract, and at the 3rd level, complaints from the urinary system are examined.

Table 4.5.

	The main group n= 67				peer group n=31			
PEDI-20	Before the operation	It's been 6 months since the operation	It's been 12 months since the operation	It's been 24 months since the operation	Before the operation	It's been 6 months since the operation	It's been 12 months since the operation	It's been 24 months since the operation
(POP)	28(41,79 %)	9(32,14 %)	3(10,71 %)	0	13(41,9 %)	3(23,07 %)	2(15,38 %)	4(30,76 %)
(CPA)	20(29,85 %)	4(20%)	1(5%)	0	7(22,5%)	2(28,57 %)	4(57,14 %)	1(14,28 %)
(UDI-6)	19(28,35 %)	6(31,57 %)	4(21,05 %)	1(5,26% %)	11(35,48 %)	3(27,2%)	4(36,7%)	2(18,19 %)

When the PEDI-20 questionnaire was conducted among our patients under study. 28 patients (41.79%) had genital complaints, 20 patients (29.85%) had complaints about the gastrointestinal tract, 19 patients (28.35%) had complaints about the urinary system, and 6 months after surgery then it can be seen that these indicators have significantly decreased and after 24 months there are almost no complaints.

Significantly positive results were achieved when the pelvic tube dysfunction of patients was studied in the post-surgical period, when the score was calculated according to the score system in the questionnaire.

According to this, before the surgery, the answers of the patients to the 1st level questions were 91 points, and after 24 months, this indicator was 4.1 points. If 80 points were collected for the 2nd level questions, after 24 months this indicator will be 3.12 points. 77 points were collected for the 3rd level questions, and this indicator will be 2 points later.

PFIQ-7 (PelvicFloorImpactQuestionnaire)- used to assess the impact of pelvic floor dysfunction on the psychological and social quality of life, the same results were obtained before surgery.

PFIQ-7 (Pelvic Floor Impact Questionnaire)				
Guideline: Some women find that symptoms associated with bladder, bowel, or uterine prolapse affect their daily activities, relationships, and emotions. Place an "X" next to the answer that best describes the symptoms you have experienced in the past 3 months. Please make sure you tick all 3 boxes before each question				
	How often the symptoms associated with -- affect you қилиши	"bladder or urine" <input checked="" type="checkbox"/>	"Intestine or rectum"	"Uterine or pelvic organs" тушиши"
1	Ability to do housework (cooking, cleaning, washing)?	- Never - Sometimes - Most of the time - Often <input type="checkbox"/>	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often

2	Ability to walk, swim or exercise?	- Never - Sometimes - Most of the time - Often	-- Never - Sometimes - Most of the time	- Never - Sometimes - Most of the time - Often
3	The ability to attend cinemas, concerts?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
4	Ability to travel by car, bus more than 30 minutes from home?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
5	Participating in social activities outside the home?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
6	Emotional state (anxiety, depression, etc.)?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often
7	Do you feel disappointed about something?	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often	- Never - Sometimes - Most of the time - Often

Calculation: all questions correspond to the following score scale: never - 0; base - 1; often-2; frequent-3. Sum of points for 7 questions in the "urinary bladder or urine" column. Sum of points for 7 questions on "Intestine or right intestine". Sum of points for 7 questions on "Prolapse of uterus or pelvic organs". It is necessary to calculate

the arithmetic mean of the obtained result (the value of the spread from 0 to 3), then multiply this number by 100 and divide by 3 to get the value from 0 to 100.

In the questionnaire conducted among the patients before surgery, it was found that 37 of 67 patients had problems in the "bladder or urinary" system in 55.2%, 41.49% in 28 patients in the "Intestine or rectum" system, and 61.19% in 41 patients. Various complaints about "falling out of the uterus or pelvic organs" have been identified. Before surgery in the comparison 14 (45.16%) of "prolapse of uterus or pelvic organs" had complaints, 9 (29.03%) of "intestine or rectum" had complaints, and 8 (25.80%) of "urinary bladder or urine" had complaints.

When these indicators were filled out in our post-surgery questionnaire, it was found that the long-term results of the newly developed method were clearly stable in patients after the surgery.

When the long-term results were analyzed, in the period after the surgical operation under our study, in our question-and-answer questionnaire, the main group of our patients complained of "bladder or urinary system" before the operation, 37 (55.2%) patients complained 12 months after the surgical operation, 3 (4, 47%) in 1 person after 24 months

Long-term results from surgery						
Classification	"bladder or urine"		"Intestine or rectum"		"Prolapse of uterus or pelvis"	
	12 month	24 month	12 month	24 month	12 month	24 month
PFIQ-7	3 (4,47%)	1 (1,49%)	1 (1,49%)	0	0	0

It was found that (1.49%) had a complaint. And this is a positive result considering that our patient had bladder trauma in the primary surgery and the bladder scar was completely removed in an improved method for gross scarring. Complaints of "bowel or rectum" and "prolapse of uterus or pelvis" showed somewhat better results. Initially, 28 (41.49%) had complaints about the gastrointestinal tract, while this indicator was observed in 1 (1.49%) patients during the long-term examinations, and later, the absence of complaints in both systems shows that the chosen method is another method.

Table 4.11.

Long-term results from surgery								
Classification			"bladder or urine"		"Intestine or rectum"		"Prolapse of uterus or pelvis"	
Long results		Oper. before	12 month	24 month	12 month	24 month	12 month	24 month
PFIQ-7	67 нафар	88,9 баъли	14,2 баъли	4,76 баъли	4,76 баъли	0	0	0

Thus, the subjective severity of the symptoms, their impact on the functional, psychological and social components of the quality of life were evaluated. The PFDI-20 and PFIQ-7 questionnaires included an assessment of the severity of symptoms caused by penile prolapse, a subjective assessment of the severity of symptoms of lower gastrointestinal dysfunction and urinary disorders.

Analyzing the results of the study, it was found that the PFDI-20 and PFIQ-7 questionnaires are reliable and valid and can be used to evaluate the quality of life in patients with pelvic organ prolapse, as well as to evaluate the subjective effectiveness of surgical treatment in patients operated on for the above pathologies.

When interviewing 67 patients, 100% of our women noted that their overall health was much better than pre-operative complaints and post-operative complaints. Especially considering that our patients mainly have relapsed JAP, they noted that the fear of recurrence of the disease has completely disappeared.

In addition, 46 (68.65%) of the patients were having sex, and they said that they had no pain during sex because of the surgical procedure performed, that is, strengthening of the vagina and a reliable frame. However, 21 (67.74%) of patients in the control group reported not only prolapse of the vagina, but also complete abstinence from sexual life. The reason for this was expressed by the presence of various pains, anorgasmia, and fear.

When the questionnaire was analyzed among women who underwent surgery in this way, almost three times and 2.9 times as many women who underwent surgery according to the improved method reported that their health improved completely, and none of them noted that their health deteriorated in the near and long term. Unfortunately, it was found that every fourth woman who performed traditional transvaginal and abdominal hysterectomy had one or another complaint about JAP, and 8 (25.80%) of the patients had vaginal recurrence.

In conclusion, transvaginal hysterectomy, performed in an improved method with a strong framework of the vagina, did not have a negative effect on the quality of life and sexual life of patients in the short and long term after our surgical practice. The fact that the quality of life has significantly improved in the psycho-emotional state of patients, the absence of complications and recurrence of the disease in the postoperative period is the basis for recommending the widespread use of the transvaginal hysterectomy method with the help of this improved vaginal framework.

CONCLUSIONS

1. In women with genital prolapse, the recurrence rate of the disease is 68.4%, including vaginal prolapse after abdominal or transvaginal hysterectomy, which is 24.3%. New surgical treatment methods are used in the treatment of severe genital prolapse and vaginal prolapse after hysterectomy. means development and implementation.

2. The method developed for the treatment of complications and recurrence of genital prolapse, i.e. in the improved technique of transvaginal hysterectomy using local tissue, strengthening of the vagina with the help of "X-shaped" continuous sutures improves the regeneration of the tissues, accelerates the flow of the wound, prevents the accumulation of infiltrates and the development of cultitis, in addition A firm "bubble"-like frame helps prevent apical prolapse after hysterectomy.

3. The effectiveness of the developed method is that it helps to reduce the operation time by 1.5 times, significantly reduce the amount of blood loss, and reduce the length of stay of patients in the hospital by 2 times during the post-surgery period. In addition, artificial "drainage" in the field improves the flow of wound fluid between the tissues and prevents the accumulation of exudate, leading to the rapid healing of the post-operative wound.

4. We have developed a method of completing transvaginal hysterectomy, complications that can be observed in the near and long term in patients and a special questionnaire (PFDI-20: 30.9 ± 9.8 , 17.5 ± 4.2 , 25.7 ± 6.7 , against 4.1 ± 2.1 , 3.12 ± 1.3 , 2.0 ± 1.2 and PFIQ-7: 16.7 ± 4.8 , 25.86 ± 0.6 vs. 4.76 ± 1.2 , 1 ± 0.8) helps to completely eliminate it, improves the quality of life of patients and the way of living in social life.

PRACTICAL RECOMMENDATIONS

1. Recurrence and complications of penile prolapse should be performed in all women with artificial drainage using the newly developed transvaginal hysterectomy technique, with the help of "X"-shaped continuous sutures, which in turn leads to a deep vagina, a reliable "bubble"-like structure. with the help of a frame, the quality of life of patients improves and relapse of the disease is completely prevented.
2. Transvaginal hysterectomy method of optimized surgical practice in relapses and complications of genital prolapse has several advantages and the efficiency of the new method can be achieved only with the help of a leading specialist in central hospitals. In addition, since special equipment and material costs are not required for surgical practice, it is necessary to make it possible to perform it anywhere in our republic.
3. The improved technique of uterine extropion with a transvaginal approach is recommended for all older women, in severe cases of genital prolapse, recurrence and complications of genital prolapse, and transvaginal hysterectomy for uterine fibroids.

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