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EXPERIENCE OF TREATMENT THE PATIENTS WITH PILONIDAL SINUS

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ОПЫТ ЛЕЧЕНИЯ БОЛЬНЫХ С ЭПИТЕЛИАЛЬНЫМ КОПЧИКОВЫМ ХОДОМ

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Pilonidal sinus (PS) in diseases structure in coloproctologic hospitals takes fourth place. In order to improve the results of surgical treatment patients with PS on different stages of disease are provided with the comprehensive approach to the choice of treatment. We observed 523 patients with PS from 17 to 53 years old.

Comparison was made with the control group. In the group of investigation a comprehensive approach to treatment was used, that had resulted in reduced the number of complications and relapses.

Key words: pilonidal sinus, the gluteal-sacrococcygeal region, the prevalence rate of inflammatory process

В структуре болезней проктологических стационаров эпителиальный копчиковый ход (ЭКХ) занимает четвертое место. С целью улучшения результатов хирургического лечения больных ЭКХ в различные стадии заболевания предложен комплексный подход к выбору метода лечения. Под наблюдением находилось 523 больных ЭКХ в возрасте от 17 до 53 лет.

Сравнение проводилось с группой контроля. В группе исследования был применен комплексный подход к лечению, что позволило снизить количество осложнений и рецидивов заболевания.

Ключевые слова: эпителиальный копчиковый ход, ягодично-крестцово-копчиковая область, распространенность воспалительного процесса

Pilonidal sinusis (PS) occurs in the surgical and coloproctology practice. It is detected in 3–5 % of cases while mass examination of healthy population. In proctologic clinics pilonidal sinusis and its complications are on the fourth place in structure of all diseases after hemorrhoids, paraproctitis and anal fissure. The relevance of this pathology studying is due to the fact that the disease manifests itself in the most active young age. More than half of the patients underwent surgeries before the age of 30. Despite the large number of studies on pilonidal sinusis, 13–23 % of patients had relapse of the disease, 13–24 % of patients developed post-operative complications. The vast majority of research examines the cause of complications in the presence of an inflammatory process in the surgical intervention area and errors in the surgical techniques, but does not study other factors. Therefore the predictive factors of identification, influencing the development of postoperative complications, and the development of therapeutic interventions aimed at their prevention, are relevant. Therefore, identification of the predictive factors of identification, influencing the development of postoperative complications, and the development of remedial interventions aimed at their prevention, are clinically important.

Aim of study was to demonstrate the clinic experience in treatment of patients with pilonidal sinus.

Material and Methods. Over the past 20 years, in ambulatory Center of Coloproctology and Coloproctological Department of Stavropol Clinical City Hospital № 2 523 patients were treated with different clinical forms of pilonidal sinusis. Among them, half of the patients were in the most productive and active age of 20–29 years. Men composed of 401 (76.6 %), women – 122 (23.3 %). The ratio of men to women was approximately 3:1. Of the 523 patients 323 (61.7 %) were hard workers. Duration of disease in 400 (76.4 %) patients was less than 3 years.

At 427 (81.6 %) patients with pilonidal sinusis strictly on middle gluteal line at a distance of 2–8 cm from the edge of the anus had a pilonidal sinus primary orifice vary in size from barely noticeable to wide in the form of a funnel, sometimes with it sticking out of a tuft of hair. Of these, in 157 (30.0 %) patients was determined several pin focuses located one above the other at a distance from 2.5 to 8 cm above the anus. At least 288 (55.0 %)

patients after spontaneous section or surgical opening of abscess in the sacrococcygeal area have fistulas with purulent discharge. With the primary fistula was treated 118 (22.5 %) patients. The fistulas were solitary, with length from 1 to 5 cm, always directed towards the sacrum and coccyx. Secondary fistulas occurred in 170 (32.5 %) patients, due to repeated acute inflammation of pilonidal sinus, the skin and subcutaneous tissue in the area of the fistula palpated as a single conglomerate scar, damaged tissues, the mobility of which was limited. The length of fistula was from 1 to 3 cm, towards to the sacrum and coccyx.

Diagnosis of pilonidal sinus was done based on inspection, catheterizing the fistula, staining of pilonidal sinus, fistula, fistulography, sigmoidoscopy, ultrasound and radiography of sacrococcygeal region.

In 65 (15.9 %) patients other proctological diseases associated with pilonidal sinus were present. Hemorrhoids encountered most frequently in 21 (5.2 %) patients. Chronic paraproctitis was observed in 12 (2.9 %) patients, other diseases such as the polyp of rectum, anal fissure, catarrhal proctosigmoiditis were found less frequently. The presence of some concomitant proctologic diseases requires simultant operations. So, after the pilonidal sinus excision in 7 patients with subcutaneous submucosal rectal fistulas, was performed operation by Gabriel; in 3 patients with a transsphincter fistulas – excision of fistula in the rectum with partial wound closure; in 2 patients with extrasphincter fistulas of rectum – excision of fistula with a Djad-Rablea plastics. After removal of pilonidal sinusis the wound treated by semi-closed way.

Depending on research methods, features of medical tactics and choice of treatment in 523 patients, were formed two groups. The control group included 396 (75.7 %) patients with pilonidal sinus, treated by traditional methods, who were hospitalized in coloproctological department of Stavropol Clinical City Hospital № 2 in period from 1980 to 2005, the second group (main) – 127 (24.2 %) patients were treated in the same place during the period from 2007 to 2014. The groups were matched by sex, age and nature of pathology.

Since 2007 the operation choice include the severity and prevalence of the inflammatory process, variants of gluteal-sacrococcygeal region structure, as well as severity of the body hair skin in the area of operation, its infection due to the anus proximity, etc.

In the study of topographic-anatomical structure of gluteal-sacrococcygeal region consider the standing buttocks height. High and average configuration, that relatively unfavorable for surgical treatment, was observed in 84 (66.1 %) patients.

In 396 (75.7 %) patients from the control group, used traditional examination approach: anamnesis, inspection, palpation, probing, staining of pilonidal sinus, inspection of rectum, X-ray examination of sacrococcygeal region, at least fistulography. During choosing a method of surgical treatment in this group of patients only, we paid attention to the intensity and prevalence of inflammatory process, which was determined clinically. The first stage of operation consisted from excision of pilonidal sinus and all its ramifications within healthy tissue. The second part of operation was carried out in different ways. We used the following options for wound closure: wound closure tightly; partial wound closure; suturing the wound edges to its bottom; wound closure with skin grafting by displaced flap; keeping the wound open.

Registration of clinical data, its statistical processing and graphics were performed using the software Biostat, SPSS 17.0. Epi Info and software package Microsoft Office. Compare the differences between mean values was estimated using the values of standard deviation and were considered significant by Student's criterion $p<0.05$ and the Fisher test $p<0.05$.

Results and Discussions. In the main group of 127 (24.2 %) patients with different clinical forms of pilonidal sinus, we implemented a comprehensive approach to the choice of treatment. Preparation of patients for surgery included a set of measures aimed to reduce and eliminate inflammatory process in sacrococcygeal region. Sanitation of the sinus path was carried out by sequential washing with 3 % solution of hydrogen peroxide and 0.5 % alcoholic chlorhexidine solution with subsequent percutaneous treatment of mid-frequency ultrasound № 2–4. In marked inflammatory process for the preparation of the surgical field affected skin within 3 days suberythermal doses of ultraviolet quartz by incremental methodology (1/2–1–1.5 dose). In selection of treatment noted topographic-anatomical configuration of the buttocks, the intensity and prevalence of the inflammatory process.

To close the defect after excision of pilonidal sinus was performed intradermal sutures. Radical surgery excision of pilonidal sinus with intradermal suture made for14 (11.0 %) patients with low buttocks configuration: 6 (4.7 %) – without clinical symptoms, 8 (6.3 %) – in remission. In 29 (22.8 %) patients with low buttocks configuration, wound closure was carried out by suturing the edges to the bottom. Unlike previous operation suturing a wound formed upward. In 18 (14.2 %) patients with pilonidal sinus with average buttocks configuration in stage without inflammation and in remission of wound, formed after the excision within healthy tissue, sutured by our method № 1. Unlike previous operations, suturing wounds were carried out as follows: subcutaneous tissue on 1/2 depth of the wound sutured by nodal sutures used the absorbable material; then by threads ends of the node are superimposed the intradermal sutures to the skin edge, after the threads binding with each other, by screwing skin edges of wound inwards, forming buttock fold.

In 39 (30.8 %) patients with pilonidal sinus with average buttocks configuration and chronic inflammation, in which the primary and secondary fistula located close to each other at a distance of less than 3 cm from the buttocks, fold after pilonidal sinus excision, wound closure was performed by our method № 2. Unlike previous operations, suturing of wound formed from the bottom up as follows: subcutaneous tissue to a depth of 1/2 of the wound stitched used double synthetic absorbable thread, tied nodal sutures; then, alternately, by one of the strands nod ends lays intradermal suture on the skin edges and linked together, by screwing skin edges of the wound inwards. This manipulation is repeated with all nodal stitches that enable to form a track in the form of a narrow strip to a depth of 0.5 cm, providing adequate outflow of wound secretion.

In 19 (15.2 %) patients with high buttocks configuration in stage without inflammation and remission of the wound, after the excision within healthy tissue, the sutures done by method № 1, but subcutaneous tissue sutured with 2/3 depth of the wound. This operation was performed in patients with high buttocks configuration: 4 (3.2 %) patients – without clinical manifestations and 15 (11.8 %) – in remission.

In 8 (6.3 %) patients with pilonidal sinus and high buttocks configuration with chronic inflammation, primary and secondary fistulas located close to each other at a distance of less than 3 cm from the buttock fold, after pilonidal sinus excision within healthy tissue, wound

closure was performed according to our method № 2, but the subcutaneous tissue was sutured with 2/3 depth of wound.

A number of complications reduced from 29.3 % of patients in the control group to 4.6 % in patients to whom we provided differentiated approach to treatment. The comparison of the long-term treatment results of the first and the second groups of patients with pilonidal sinus and complications revealed that stable recovery occurred respectively in 81.4 % and 98.1 %, the recurrence rate decreased from 15.5 % to 1.8 %, that is more than in 8 times, reduced the discomfort phenomenon in the sacro-coccygeal region from 10.2 % to 1.8 %.

Conclusions. Thus the result of surgical treatment in patients with pilonidal sinus was good immediate. Also the late-term result of treatment requires proper preparation of patients for surgery, determining the intensity and extent of inflammation in tissues, differentiated selection of treatment strategy and surgical tactics.

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