



Though the mechanical parameters of PLA/PGA screws were lower than of metal screws, but achieved results showed that their fixation strength is high enough for internal fracture fixation in non-weight bearing areas. The biodegradable screws can be used alone or in combination with metal devices and their biodegradable properties give them additional advantage.

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PROSTATIC INTRAEPITHELIAL NEOPLASIA (PIN)

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Prostatic cancer is one of the most urgent problems in the modern medicine. Digital rectal examination, transrectal ultrasound of the prostate and PSA level determination in serum don't always allow us to detect tumor process in early stages. That is the main reason why the features of precancerous conditions development and early diagnosis of prostatic cancer are so important. Prostatic intraepithelial neoplasia (PIN) is a precancerous condition of the prostate. According to the literature devoted to this state, the frequency of PIN detection during the initial biopsy is from 0,4 % to 25 %. However, during punch biopsy in cases where we suspect prostatic cancer (PC) frequency of PIN is from 8% to 50%.

The purpose of this study is to detect a frequency of PIN after TURP and to find out the signs of PIN in patients with benign prostatic hyperplasia.

There were analyzed 184 case-records of patients with benign prostatic hyperplasia and prostatic cancer who had underwent TURP. We had 106 patients with BPH, 100 of them had histologically confirmed BPH (1 group), 6 patients had PIN (2 group), 78 – incidental prostate cancer (3 group). Investigated signs are the age, the body mass, the presence of epicystostomy, the hematuria, the acute urinary retention, the chronic urinary retention, the chronic cystitis, the chronic prostatitis, the bladder atony, the diabetes mellitus, the prostate volume, the presence of prostatic calcifications and previous usage of alfa1-adrenoblockers.

The average age of patients with BPH is 70 ± 11 , with PIN 67 ± 9 , with prostatic cancer 74 ± 12 . During the investigation of body mass and BMI in all groups of patients the information that would have diagnostic value haven't been obtained. The presence of epicystostomy in patients with BPH 28%, PC- 16,7%, PIN-0%. Hematuria: 16% with BPH, 5,1 % with PC, PIN-0%. Acute urinary retention: 47% with BPH, PC 50%, 83% PIN. Chronic cystitis: 48% with BPH, 66,6% with PIN, 88,5 with PC. Bladder atony: 6% BPH, PC, PIN- 0%. Diabetes mellitus: BPH 3%, 33,3% PIN, 2,5% PC. Presence of prostatic calcifications: BPH 3%, PC, PIN- 0%. Chronic urinary retention: 33% BPH, 16% PIN, 50% PC. Non-effective usage of alfa1-adrenoblockers: BPH 17%, 33,3% PIN, 19,2 PC. Chronic prostatitis: BPH 56%, 83% PIN, PC 51%.

After having analyzed the research results, we found out that the frequency of PIN after TURP was 4,4%. There are several prognostic signs of PIN and prostatic cancer, such as the non-effective usage of alfa1-adrenoblockers, the diabetes mellitus, the chronic prostatitis and the acute urinary retention. There is the lack of programs which could help diagnose this disease on early stages, which, obviously, significantly complicates the treatment. We can reduce morbidity and mortality of prostatic cancer only by providing an early diagnosis and treatment.

Knut R.P.

HISTOLOGICAL PRECONDITIONS FOR THE DEVELOPMENT OF COMPLICATIONS IN HERNIOPLASTY USING PROLENE ALLOGRAFTS

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In recent years, the use of alternative methods of allograft fixation in anterior abdominal hernioplasty has become increasingly common, as the use of prolene ligatures leads to additional trauma of tissues and nerve fibers in the area of plastics, which can in turn lead to postoperative complications. The use of stich-free methods of hernioplasty and of surgical sealants avoids the



above complications, however, insufficiently effective fixation of the allograft can lead to its displacement in the postoperative period and cause recurrence of hernia.

To study the terms of allograft fixation to tissues of bed with fibrin and collagen fibers for further elaboration of more effective methods of surgical treatment of anterior abdominal wall hernias. The study is experimental. As the study material were used 26 white rats, which were implanted in the muscles of the anterior abdominal wall the prolene allografts measuring 0.5×0.5 cm. Collection of the material for histological examination was performed by biopsy of muscles with implanted allograft after 1, 3, 5, 7 and 10 days from the moment of modeling of the experiment. 3-5 μm thick sections were stained according to standard methods. The study was performed at a magnification of $\times 100$ using a descriptive method of detecting changes.

Results of the study show that during the first four days after the modelling of the experiment, the fixation of the allograft occurs mainly due to fibrin fibers. When taking a biopsy during this period, the allograft was easily moved. After the 5th days of the modelling of the experiment in tissue biopsies there was a predominance of collagen fibers. During taking the biopsy, the allograft was fixed to the tissues of the bed and did not move.

During the first four days of the postoperative period, the allograft's fixation is not effective enough, which can cause its displacement or twisting and lead to recurrence of the hernia, so it is advisable to use surgical sealants to fix it and prevent the development of complications of the postoperative period.

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TREATMENT OF PYO-NECROTIC WOUNDS IN MODERN CONDITIONS

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Wound healing has always been an important problem of practical surgery, so every year a large number of tools, methods and ways to treat them are introduced. However, the clinical experience gained by surgery in the field of theory and practice of wound healing still needs new methods and techniques that would speed up the treatment of chronic wounds and reduce the frequency of limb amputations. Therefore, the aim was to reduce the duration of treatment of chronic wounds of various etiologies and improve the results of their healing by optimizing the stage of purification and stimulation of granulation of the wound surface.

As the main obstacles to the healing of such wounds and their readiness for granulation and epithelialization are fibrin layering and necrotic processes in the wound, as well as microbial contamination, we suggested the use of wet fermentation and lysis of non-viable tissues. 67 patients with purulent-necrotic wounds, whose wound area ranged from 30 to 580 cm^2 , were treated. The main group included 34 patients who used the "wet chamber" method with a complex of medicinal ointments and solutions to treat wounds. To ensure the effect of a wet environment, an activated wound dressing or wet dressing was used. In the control group (33 patients) standard dressings were applied.

At the time of the third dressing on the 7-th day (dressings were applied once every 3 days) there was a sharp change in the condition of the wound – its bottom began to be filled with well-mature granulation tissue, along the perimeter there was the appearance of marginal epithelialization. The average period of complete cleansing and preparation of the wound for healing in the main group was 13.82 ± 1.41 days, in the comparison group – 25.36 ± 1.39 days ($p < 0.05$). Granulation tissue appeared in the wound during 5.85 ± 0.32 days, which is probably faster than in the comparison group – 13.83 ± 0.57 ($p < 0.05$). That is, when applying a "wet chamber" it was possible to quickly and without necrectomy clean the wound defects by 1.83 times and accelerate the growth of granulations by 2.36 times.

Comprehensive treatment of chronic wounds with the use of "wet chamber" has a significant advantage over traditional methods. The suggested method of comprehensive wet lysis significantly accelerates the wound cleansing period, accelerates and stimulates the formation of granulation