

## ECHINOCOCCOSIS AT UROLOGY. PELVIC PARASITIC CYST. CASE REPORT

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### Abstract

**Introduction.** Echinococcosis is a serious chronic parasitic disease. Early diagnostics and patients` treatment with echinococcal lesions is an up-to-date problem.

**Objective.** The aim of the article is to present the clinical case of diagnostics and treatment of the patient with urological complications caused by parasitic echinococcal pelvic cyst.

**Clinical case.** The article highlights the features of diagnostics and treatment of urological complications of pelvic echinococcal lesions. The patient was operated in volume: "Laparotomy. Resection of parasitic cyst of small pelvic cavity. Echinococectomy of the liver, abdominal cavity, retroperitoneal space." The peculiarities of operation was highlighted. The postoperative period lasted without complications.

**Conclusions.** The demonstrated clinical case points out the necessity of the *dispanserisation*, early diagnostics and special helminth treatment of the patients living in the endemic regions. It allows to prevent the appearance of the echonococcosis advanced cases that lead to the reoperations and frequent patients` disability.

**Keywords:** echinococcosis, parasitic pelvic cyst, surgical treatment.

**INTRODUCTION.** Echinococcosis is a serious chronic parasitic disease. Early diagnostics and patients` treatment with echinococcal lesions is an up-to-date problem. Echinococcosis is frequently latent in the course of the disease requiring a careful and comprehensive examination of patients as it is often hidden under the other diseases` symptoms. The South of Ukraine is an endemic region for echinococcosis and especially high prevalence is in the country areas of Bessarabia and Budzhak (Izmail, Bolgrad, Tarutino, Sarata, Tatarbunary, Reny, Kiliya, and Arziz regions) [1]. The echinococcosis is caused by invasion of the young embryos (Finns) of the tapeworm helminth (*Echinococcus granulosus*) into the human body. Infection is caused by the close contact with dogs as well as by using of water or food contaminated by the excrements of dogs. As soon as the cysts of this helminth get into the gastrointestinal tract they relieve from their shells due to the effect of the digestive enzymes. After that the echinococcus get into the circulatory system and with the help of the blood is spreading into various organs where it settles and starts to develop. The most common organs affected by echinococcus are: the liver with 70% of lesion, lungs with 20% and the last 10% is divided among the kidneys, the cranial cavity, the small pelvis, the spleen, the bones, the genitals, the eyes, the spinal cord and the urethra bubble [2].

**OBJECTIVE.** The aim of the article is to present the clinical case of diagnostics and treatment of the patient with urological complications caused by parasitic echinococcal pelvic cyst.

**METHODS.** Patient A., 38 years old, came to the Reconstructive Center (University Clinic) of Odessa National Medical University with complaints on the self-urination impossibility for 12-14 hours, pulling pains in the hypogastrium, the lower abdomen size increasing. Complaints have been existed for 6 months. He was treated from the chronic prostatitis outpatiently at the place of residence. A week before the bladder catheterization was performed in connection with the clinical manifestations of chronic incomplete urinary retention during which urine was not received. Later he was treated on his own. The patient lives in one of the southern areas of the Odessa region. From anamnesis: it is known that in 2008 the patient was operated on disseminated echinococcosis of the abdominal cavity (parasitic cysts of the bile duct, mechanical jaundice) and retroperitoneal space in the volume: "Laparotomy. Splenectomy, liver resection of 5 and 7 segments, echinococectomy of the retroperitoneal space and abdominal cavity, choledochotomy." In the future patient was not under the observation.

During the initial examination the following results are received: abdomen is increased. Bladder dominated over the pubis in 13 cm. The Pasternack's symptom is weakly

positive from the both sides. The following tests were done: general blood test and biochemical test, ECG, therapists consultation, rising urethrocytography, kidneys and bladder ultrasound checking, prostate TRUC. GBA: leukocyte -  $11.8 \times 10^9$  units/l; erythrocyte -  $4.2 \times 10^{12}$  cells/l; hemoglobin - 140 g / l, urea - 5.3 mmol / l; creatine - 130 micromol / l. According to USC: signs of two-sided ureterohydronephrosis and urine retention (pic. 1). Bladder capacity - 1800 ml (pic. 2). Prostate was without peculiarities. Due to this, the urethral catheter has been installed to the bladder - the urine has not been received.



It was decided to perform a spiral CT of the retroperitoneal space, abdominal cavity, small pelvis and the chest organs. Conclusion: CT-signs of parasitic cyst of small pelvis in large sizes. Bilateral ureterohydronephrosis (pic. 3).

Parasitic cysts of the peritoneum, liver and retroperitoneum (pic. 4, 5).





After the examination the following diagnoses was made: "Recurrent disseminated echinococcosis of the abdominal cavity. Parasitic cysts of the peritoneum, liver, retroperitoneum. Solitary giant parasite cyst of the small pelvis. Bilateral ureter obstruction of the pelvic section. Bilateral ureterohydronephrosis. Postrenal anuria. Condition after surgical treatment of the echinococcosis of the abdominal cavity (2008)".

The patient was operated in volume: "Laparotomy. Resection of parasitic cyst of small pelvic cavity. Echinococectomy of the liver, abdominal cavity, retroperitoneal space." After laparotomy adheziolysis was performed, the cyst of the small pelvic cavity filling almost the entire volume was visualized and it pressed the surrounding organs. The bladder was deformed and disintegrated on the giant cysts wall. A puncture of the cyst with evacuation of the contents was performed. The capacity of the cyst was 1700 ml. The cavity of the cyst was disinfected with the help of the *Povidone-iodine*. The cyst was opened, chitinous membranes were removed by aspirator. Additional disinfection of the residual cavity was performed repeatedly. Pericissectomy of 40% of cyst wall volume was performed. The bladder back wall was separated, the dilated pelvic sections of the ureter peristalted and were isolated. After all this manipulations the urine of ordinary color appeared inside the urethral catheter. The adheziolysis was performed on the upper floor of the abdominal cavity. Parasitic cysts up to 6 cm in diameter in the largest dimension were observed in the 6th segment of the liver, in the projection of the 7th segment near the upper pole of the right kidney and in the projection of the 8th segment of the liver. Cysts were removed. Cholecystectomy was also performed. The chitinous membranes of the cyst and a fibrous capsule were sent to the histological examination. Histologic conclusion: "Echinococcal parasitic cyst covers". The postoperative

period lasted without complications. According to the control ultrasound checking of the urinary tract a complete renewal of the urodynamic was determined.

**CONCLUSIONS.** The demonstrated clinical case points out the necessity of the **dispanserisation**, early diagnostics and special helminth treatment of the patients living in the endemic regions. It allows to prevent the appearance of the echonococcosis advanced cases that lead to the reoperations and frequent patients` disability.

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