

*Учену, експертна  
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## RARE LOCALIZATIONS OF ECHINOCOCCUS CYSTS

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Echinococcosis in Bulgaria, in spite of substantial progress hitherto achieved insofar its radical treatment is concerned, represents an unsolved problem as yet. Inasmuch problems concerning etiology, pathogenesis, clinical course, diagnostics and indications for operative management of echinococcosis in the liver, lung and kidney are, in general outline, well investigated, the questions, concerning the essence and nature of the rare localizations in terms of therapeutic-diagnostic aspects, spark a great surge of interest and continue to be the objective of research and scientific publication. In the past several years, our medical literature was enriched by numerous publications of similar character. K. Stoyanov, P. Stanchev, G. Dimov, Iv. Gazurkov, K. Ganchev, M. Mihaylov and St. Slavkov report personal observations on echinococcosis of the heart, pericardium and major vessels. Of particular interest is the report made by G. Chervenkov and Ag. Armenkov in which two cases with echinococcus of the pyloric gland are analysed. Y. Dobrev, Y. Ivanov and P. Solakov make a definite contribution regarding some peculiarities of the clinical picture, diagnosis and treatment of renal echinococcus. P. Shopov describes an infected echinococcus of the thyroid, perforated into the trachea and esophagus. Echinococcus cysts of the diaphragm, spleen, kidney, retroperitoneal space, bones, muscles, pancreas and thymus gland are considered among the rare localizations. The high incidence of echinococcus affections in Bulgaria enables the carrying out of follow-up studies on cases with interesting localizations. To the variety already stated, the authors add the following personal observation:

1. echinococcus of the spleen	— 3 patients
2. " " " kidney	— 2 "
3. " " " peritoneum	— 2 "
4. " " " pancreas	— 1 patient
5. " " paravertebral musculature	— 1 "
6. " " intercostal muscles	— 1 "
7. " " the bones	— 1 "
8. " in the region of 7-C vertebra	— 1 "
9. " in the paranephral space	— 1 "
10. " " the subcutaneous tissue of the back	— 1 "

Brief summaries of the past history data, clinical course and operative finding are presented merely of selected patients, surging greater interest from diagnostic and clinical viewpoints.

The first case concerns a boy, aged 12 — I.I. (history of illness No 1453/1958). Since six months he complains of coughing and fulgurating pains, mainly in the left thoracic half. He has almost continuously subfebrile

temperature. With these complaints and diagnosis — pyelitis, the child undergoes treatment in the children's ward. In the course of time, the initial diagnosis is rejected and diaphragmal leftside pleuritis is accepted, and accordingly, the child referred to the District Tuberculosis Dispensary for treatment. In the dispensary, the roentgenoscopic finding reveals a higher position of the left diaphragm and beneath it — a shadow the size of a human head, coming after the liver shadow and causing a downward shift of the gastric air vesicle. The early and late Casoni's intradermal test — strongly positive. Weinberg's test — negative. At the Tuberculosis Dispensary, diagnosis echinococcus of the splenic area is established and the child referred to the surgical department for operative treatment. During the operation, echinococcus cyst was found, the size of a child's head, originating from the spleen. The operation was carried out after the one-stage closed method of Bobrov-Spasokukotzky. The peculiarity of this observation with echinococcus of the spleen, consists in the fact that the child passed a difficult diagnostical road: department for children — Tuberculosis Dispensary — surgical department.

Calcification of the echinococcus within the spleen is a comparatively frequent complication, whereas suppuration is rather rare. Very indicative in this respect is the following case history: It concerns a woman aged 66 (history of illness No 3033/1957). Complaints of incessant pains in the left abdominal half date back two months ago. Examinations: differential blood count — St — 7, Sg — 63, Mo — 4, Ly — 24, Eo — 2. A large infected echinococcus is found during operation, with calcified wall, originating from the spleen. The operation ends with marsupialization.

Occasionally, the dog tapeworm might account for complete destruction of the splenic parenchyma and instead of the spleen, intra operationem, a large dog tapeworm with hardly discernible residue of the spleen is found. Interesting in this respect is the following case history: history of illness No 2183/26.VI.1965. It concerns a 33-year-old woman. Since three months she complains of a sense of heaviness and continuous fulgurating pains in the left subcostal area. From the examination: early and late Casoni's intradermal test — strongly positive. During operation an echinococcus cyst is discovered beneath the diaphragm cupula, the size of a man's head, originating from the spleen; the parenchyma of the latter is entirely thinned and eliminated. Splenectomy was resorted to (Fig. 1).

Echinococcosis of the kidney is a rare occurrence. It runs a course almost invariably free of characteristic symptomatology. In some cases, diagnosis is established only after the X-ray examination or on the operative table. If petrification of the echinococcus cyst occurs (although uncommon), the roentgenographic study is the most informative. The following case report is illustrative in this respect: M. I. H., history of illness No 33567/1961, female, aged 40. Admitted with preliminary diagnosis — cyst of the left kidney. The present disease dates back two years ago. Its onset is characterized by pains and sense of heaviness in the left abdominal half; occasionally the pains are accompanied by dysuric disturbances. During the X-ray investigation, an oval overshadowing is discerned, with calcium density, along the left-abdominal-half margins — in all likelihood an echinococcus cyst is concerned. At the operation echinococcus cyst was discovered with the size of a man's fist (Fig. 2).

Very seldom, the echinococcus cyst might be established within the muscles of the thorax, abdominal walls or in the loco-motor apparatus. The authors had the possibility to observe an echinococcus finding in the paravertebral musculature. It concerns a male, aged 35, history of illness No. 3410/1965. Admitted October 1, 1965 at the internal clinic on account



Fig. 1



Fig. 2

of poisoning. X-ray examination: above the 4th rib, to the left and paravertebrally, an oval shadow is disclosed, measuring 4/4 cm. From the examination: St — 4, Sg — 60, Ly — 21, Mo — 3, Eo — 6. Weinberg's test — negative. During the operation, two echinococcus cysts were discovered in the paravertebral musculature, sized as hen eggs. The operation was carried out according to the one-stage closed method of Bobrov-Spaskokotzky.

Echinococcosis of the skeleton is an exclusively rare finding and each report of a similar nature merits particular consideration. At the First Scientific Session of Bulgarian Surgeons — 1950, out of a total of 2222 echinococcus conditions, data were reported merely for 11 cases of bone affection. Almost all authors, Bulgarian and foreign equally, emphasize the specific nature and peculiarity of the development of bone echinococcosis.

1. Spontaneous healing of bone echinococcosis, without resorting to surgery, is unknown in practice.

2. Echinococcosis in the bone accounts for the occurrence of diverticular formations of variable number and form.

3. Bone echinococccsis often causes spontaneous and pathologic fractures.

4. On account of the peculiar structure and disposition of the daughter vesicles, not encompassed by a common membrane, some authors scarcely acquainted with the essence of bone echinococccsis, are inclined to consider it as alveolar echinococcus.

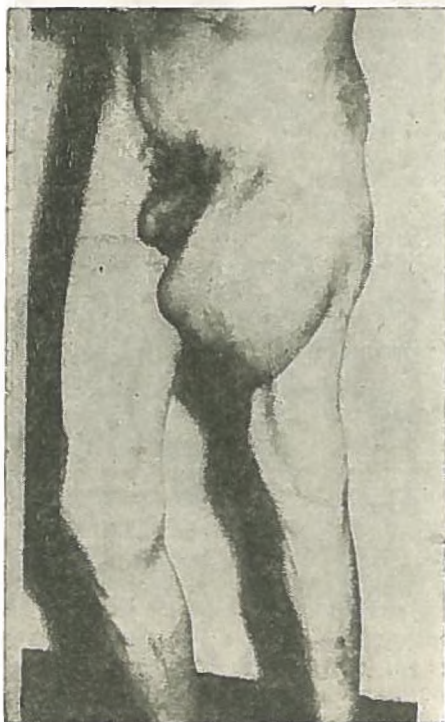


Fig. 3



Fig. 4

5. The only clinical sign of bone echinococccsis is the local swelling, manifested by a spontaneous fracture. The therapeutical possibilities in bone echinococccsis should be strictly differentiated and applied in compliance with the type and functional engagement by the musculo-skeletal system of the affected bone. The authors were able to diagnose, treat and make a follow-up study on a patient with bone echinococccsis, with the following case history: a male is concerned, aged 63, K. R., history of illness No. 2225/1963. Past history data prove that the condition dates back two years ago. The patient noted a swelling, measuring the size of unpeeled nut along the antero-medial surface of the left thigh, situated beneath the inguinal fold. In the course of 24 months, the swelling grows, reaching the size of a man's head (Fig. 3). During the operation, echinococcus cyst was discovered, involving the iliac and femoral bones (Fig. 4).

Of no lesser interest is the echinococcus, disclosed in the subclavicular region in the neighbourhood of the 7th cervical vertebra. It concerns a female, aged 61, J. A. B., history of illness No. 3263/1964. Admitted to the clinic for the first time. The X-ray study reveals overshadowing in the left femoral quadrant, later on diagnosed as a dog tapeworm. In 1963 operated for echinococcus of the middle lobe of the right lung. Several months ago she sustains a swelling in the right supraclavicular area of the neck, with numbness in the right hand, weakness and edema. From the local status: The movements in the shoulder joint are slightly restricted and painful. Muscle power in the hand is reduced. Within the supraclavicular fossa, an oval swelling is disclosed with elastic consistency, not painful. The roentgenography reveals a homogenous, round shadow, overlying the pulmonary apex. With diagnosis "echinococcus of the pulmonary apex", the patient was referred for operation. The cyst is exposed by cervico-thoracic approach and after relieving the pressure exerted by the muscles, it separates spontaneously. It was established that the cyst was not connected with the lung and originated from the surrounding tissues of the 7th cervical vertebra. Two-three days after the removal of the cyst, stasis phenomena and paresis of the hand disappeared.

On the basis of aforementioned data, the conclusion is reached that 20 per cent of all echinococcosis localizations within the human organism, gathered under the general caption "rare localizations", constitute a rather high percentage, thus, making mandatory the consideration of echinococcus pathology on each finding, presenting a swelling of the human body. The diagnosis should be complied with the specific reactions, as the Weinberg and Casoni tests, as well as with the alterations in the white blood picture, not invariably present. On choosing the operative method, the authors proceed from the same principles, valid for hepatic and pulmonary echinococcosis.

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#### РЕДКИЕ ЛОКАЛИЗАЦИИ ЭХИНОКОККОВЫХ КИСТ

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#### РЕЗЮМЕ

Авторы сообщают 14 случаев редких локализаций эхинококковых кист. Сообщаются краткие данные из анамнеза, клинического течения и послеоперативного периода только 7 из них, представляющих диагностический и клинический интерес.