A pediatric case of disseminated cystic echinococcosis

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Background:

- *Echinococcus granulosus* eggs` ingestion (found in contaminated soil, food or water) leads to the parasitosis known as echinococcosis
- Parasite enters portal circulation from the upper intestine - develops into cysts in the lungs (most common site in children), liver and other organs

Case report:

16 years old male patient; illiterate parent, from rural area

October 2012 (11 years old) – Surgical Department

- Anaphylactic shock due to the rupture of a hydatid cyst in his right lung
- Cyst was surgically removed, together with the middle lobe
- Albendazole treatment was recommended – not regularly administered

Patient lost from follow-up

January 2017 (16 years old) – Surgical Department

- Admitted for reevaluation
- Chest x-ray - multiple cysts of the right hemi thorax.
- Abdominal ultrasound - multiple different size cystic lesions of the liver and subcutaneous tissue, some of them with daughter vesicles inside
- Cranial, thoracic and abdominal CT confirmed - multiple hydatid cysts localized in the pulmonary parenchyma, pleura, liver and subcutaneous tissue.
- **DISSEMINATED HYDATIDOSIS** - recommended to continue the antiparasitic therapy with **Albendazole**

March 2017 – Pediatrics Department

- Presenting complaint: right side lumbar pain
- Physical examination: surgical scar on the right hemi thorax; on the right posterior axillary line a palpable, mobile, painless mass (Fig. 1)
- Chest x-ray - multiple well-defined round homogeneous opacities in the right hemi thorax and ascended right hemidiaphragm due to middle lobectomy (Fig. 2)
- Abdominal and soft tissue ultrasound - multiple hydatid cysts, some of them with daughter vesicles inside, located in the right liver lobe, and the soft tissue in the right laterothoracic region
- Thorax CT - multiple cysts in the mediastinum, pulmonary parenchyma and pleura (Fig. 3)
- Abdominal CT - multiple hydatid cysts in the right liver lobe, peripherally located, para-hepatic cysts and also a cyst located in the right parietal subcutaneous tissue (Fig. 4)

Fig. 4. Abdominal CT - hypodense hypoenhancing fluid content lesion with thin enhancing wall, multilobulated, localized inter-hepato-parietal with mass effect on the hepatic capsule

Fig 1. Right hemi thorax - surgical scar. Mobile, painless mass on the posterior axillary line.

Fig. 2. Multiple well-defined round homogeneous opacities in the right hemi thorax; ascended right hemidiaphragm

Fig. 3. Thorax CT - round macronodular well defined lesions involving the upper right lobe and inferior lobe showing a mass effect on the trachea and right main bronchi.

Parasitological consult:

- antiparasitic treatment (Albendazole 200mg every 8 hours)
- Evacuation of the pulmonary hydatid cysts as a first step, following with the management of the abdominal ones

Referred to the Surgical team

Lost from follow-up
(did not return for scheduled intervention)

September 2017 - Pediatrics Department

- Involved in a car accident
- Subsequently: fever, severe persistent spasmodic cough
- Chest X-Ray, Thorax CT: multiple mixt lesions with hydroaeric levels in the right hemithorax (Fig. 5, Fig. 6)
- MULTIPLE COMPLICATED PULMONARY HYDATID CYSTS**

Fig. 5. Chest X-Ray - multiple large mixt lesions with hydroaeric levels

Fig. 6. Thorax CT - multiple cavities with fluid content

January 2018- Pediatrics Department

BACTERIAL PNEUMONIA
(PROBABLY INFECTED EVACUATED HYDATID CYST)

Background:

- The authors presented the case of an adolescent with a potentially curable parasitic infection diagnosed in childhood which became untreatable due to non-medical factors
- The patient originated from illiterate parents and had six other siblings. They were animal breeders (horses) - the child did not attend school and was frequently in the proximity of animals
- The evolution of the patient was severely influenced by the socio-economic level of the family which resulted in lack of compliance to the treatment and nonattendance to follow-up clinics