## What is the waterlily sign ?

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The waterlily sign (Fig. 1) represents the freely floating endocyst of the Echinococcus granulosus, causing hydatid cysts (HC). The HC is severe, neglected, misdiagnosed, worldwide infectious disease, caused by a tapeworm, Echinoccocus granulosus, endemic of rural areas. Humans are incidental hosts. Fever and constitutional symptoms usually occur only if there is rupture or bacterial superinfection of the cyst. Ultrasound remains the diagnostic method of choice in the work-up of hepatic cystic lesions; it can differentiate cystic echinococcosis from the alveolar form, caused by Echinoccocus granulosus (Fig. 2) and Echinoccocus multilocularis, respectively. The current standard of treatment is based on the WHO Classification; Albendazol is the drug of choice; according to the clinical scenario, Puncture, Aspiration, Injection, and Reaspiration (PAIR) and surgery are correctly indicated. The rate of cyst recurrence is $16.2 \%, 3.3 \%$ and $3.3 \%$ with open surgery, percutaneous intervention and laparoscopic surgery, respectively.


Fig. 1. - Abdomen Ultrasound, demonstrating the waterlily sign. A 47 -year-old female is admitted to Emergency department from a rural clinic, because of shock; abdominal ultrasound revealed a $7.7 \times 7.3 \times 7.5 \mathrm{~cm}$ cystic lesion with anechoic content and detached laminated membrane (waterlily sign), suspicious of a hydatid cyst, CE3a, according to the WHO classification, which was successfully treated with PAIR (Puncture, Aspiration, Injection and Reaspiration) and Albendazole ( 400 mg BID); observation of echinococcal scolices under light-microscopy confirmed the diagnosis (fig. 2).


Fig. 2. - Light Microscopy image. Microscopy of cystic lesion showing rostellar hook of Echinococcus granulosus scolex.

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