

ULTRASOUND APPEARANCE OF HYDATID DISEASE OF THE LIVER

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ULTRAZVUČNA SLIKA EHINOKOKA JETRE

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Sažetak:

Ehinokok jetre može davati čitav spektar ultrasonografskih slika. U našem radu prikazujemo više ultrasonografskih slika ehinokoka sa posebnim osvrtom na diferencijalnu dijagnozu. Ehinokokna cista se ultrasonografski može prikazati kao: (a) jednostavna, unilokularna cista; (b) multilokularna lezija koja sadrži više cisti kćeri (diferencijalna dijagnoza sa cističnim adenomom); (c) kompaktna promena zbog ablacije unutrašnjih membrana od periciste (liči na hepatom, metastaze, adenom, fokalnu nodularnu hiperplaziju, apsces i hematoma); (d) delimično ili potpuno kalcifikovana cista; (e) „znak polumeseca“, kada je ablacija laminarne membrane od adventicije delimična i lokalna; „znak lokvanja“, kada je ablacija izraženija; „cista u cisti“, kada je odlublivanje potpuno; (f) lezija zadebljalog zida i kompaktna (u slučaju zagnojavanja). Ultrazvuk je jednostavna, sigurna i jeftina dijagnostička metoda koja može da proceni svu varijabilnost hidatidne bolesti.

Ključne reči: ultrazvuk, jetra, ehinokok

Abstract:

The hydatid disease of the liver has a characteristic variable ultrasound (US) appearance depending on some well determined factors. In our study we present various interesting pictures emphasizing differential diagnosis (DD) between hydatid disease and other liver diseases. Our study indicated that echinococcal cyst might be seen on US as: (a) simple, unilocular cyst; (b) multiloculated lesion due to contained multiple daughter cysts (DD from cyst adenoma); (c) impact lesion because of ablation of membranes from the cyst wall (DD from hepatoma, metastasis, adenoma and focal nodular hyperplasia, abscess and haematoma); (d) partial or complete calcification of the cyst wall; (e) "crescent sign", when the ablation of the laminated membrane (endocyst) from the adventitia (ectocyst) is partial and local; "floating water-lily sign", when it is more extended; "cyst into cyst" when it is complete. (f) thickened wall and impact lesion, because of infection and abscess formation. It seems that US is a simple, safe and inexpensive diagnostic tool, which could evaluate all the variety of the disease giving useful information.

Key words: ultrasound, liver, hydatid disease

CT- computed tomography

DD- differential diagnosis

FNH- focal nodular hyperplasia

HCC- hepatocellular carcinoma

HHD- hepatic hydatid disease

US- ultrasound

Introduction

The hydatid disease affects the liver predominantly (70 per cent), and it is usually solitary, located on the right lobe mainly. The disease could be asymptomatic for long time depending on its size, location and structure (1, 2, 3).

The cyst wall consists of three layers (the inner laminated membrane, from which the daughter cysts originates, the middle elastic membrane for nutrients passage, and the outer adventitia) and plays an important role in alteration of ultrasound image.

The ultrasound (US) appearance varies according to number, size, content, presence of daughter cysts, calcification of the wall, ablation of the membranes, and infection with abscess formation (4, 5, 6).

In the study we present some interesting US pictures selected from our experience on hepatic hydatid disease (HHD) with special regard to patogenetic explanation and great emphasis on differential diagnosis from other liver pathology in order to evaluate all the spectrum of these appearances.

