



# Liver Hydatid Disease in Children – a 10 years review

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## Background

Liver hydatid disease is still an important health problem in the world caused by larval forms of *Echinococcus granulosus*.

The disease evolution is typically slow and diagnosis relies on immunodiagnostic tests and liver imaging.

Treatment is based on ultrasound images and stage-specific approach and consist in one of the options: percutaneous treatment, surgery, anti-infective drug treatment or watch and wait approach.

## Objectives

To present a 10-years experience with 27 pediatric patients with hydatid liver disease: diagnosis, treatment, complications.

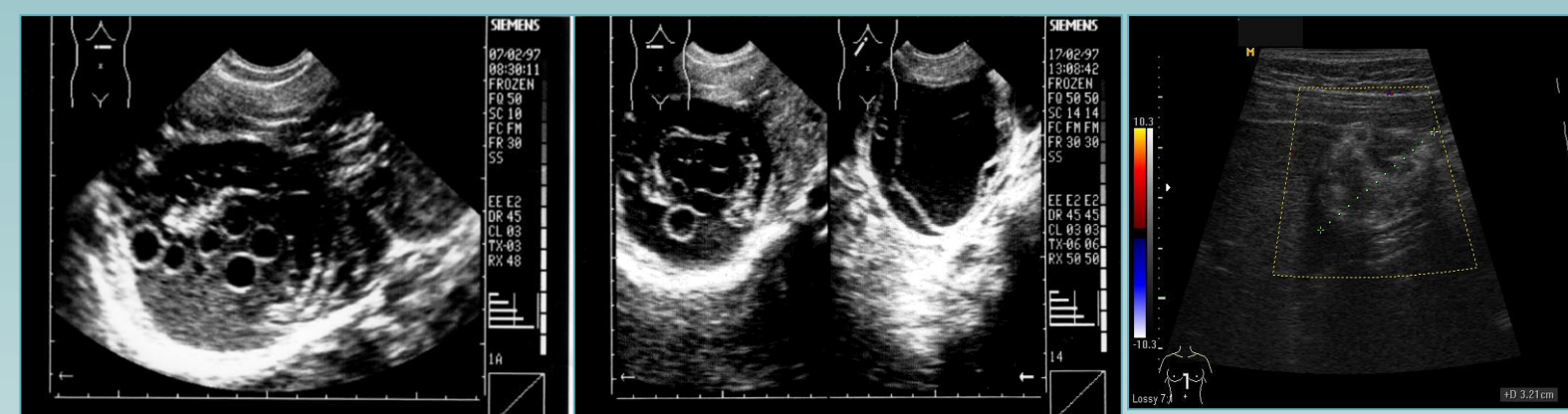
## Methods

The retrospective study performed in a pediatric department over 10 years time frame included children with upper abdominal pain, hepatomegaly, decreased appetite and fatigue. Patients were evaluated clinically, biologically and imagistic.

## Results

27 patients	15 girls / 12 boys												
Age	2-17 years (average: 8 years)												
No. cysts	42 (average: 2/patient)												
Size	<table border="1"> <tr> <td>&lt; 5 cm</td> <td>small</td> <td>29 (68%)</td> </tr> <tr> <td>5-10 cm</td> <td>medium</td> <td>10 (24%)</td> </tr> <tr> <td>&gt; 10 cm</td> <td>large</td> <td>3 (8%)</td> </tr> </table>	< 5 cm	small	29 (68%)	5-10 cm	medium	10 (24%)	> 10 cm	large	3 (8%)			
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Location	<table border="1"> <tr> <td>right liver lobe</td> <td>35 (82%)</td> </tr> <tr> <td>left liver lobe</td> <td>7 (18%)</td> </tr> </table>	right liver lobe	35 (82%)	left liver lobe	7 (18%)								
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Serum-specific IgE:	positive in 44% of patients												
Type of cysts	<table border="1"> <tr> <td>CL</td> <td>5</td> </tr> <tr> <td>CE1</td> <td>9</td> </tr> <tr> <td>CE2</td> <td>17</td> </tr> <tr> <td>CE3</td> <td>8</td> </tr> <tr> <td>CE4</td> <td>2</td> </tr> <tr> <td>CE5</td> <td>1</td> </tr> </table>	CL	5	CE1	9	CE2	17	CE3	8	CE4	2	CE5	1
CL	5												
CE1	9												
CE2	17												
CE3	8												
CE4	2												
CE5	1												

## Results



Type CE3: Floating membrane, daughter cysts, complex mass  
Type CE4: Ball of wool

Treatment	
Surgery + Albendazole	20 patients
Albendazole alone	7 patients

Morbidity – prolonged catheter drainage (11%)  
Recurrences - none

## Conclusion

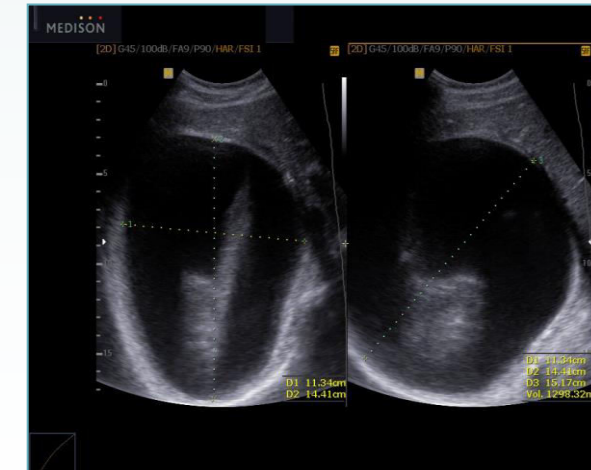
Ultrasound is high accurate in pediatric liver hydatid disease, both for staging and follow-up of children. This parasitic disease was not very rare in a 10 years pediatric survey, the treatment being chosen between surgery and albendazole or albendazole alone.

## References

1. WHO Informal Working Group. International classification of ultrasound images in cystic echinococcosis for application in clinical and field epidemiological settings. *Acta Tropica* 85 (2003) 253-261.
2. Mihmanli M, Idiz UO, Kaya C et al. Current status of diagnosis and treatment of hepatic echinococcosis. *World J Hepatol.* 2016 Oct 8;8(28):1169-1181.
3. Gomez I, Gavara C, Lopez-Andujar et al. Review of the treatment of liver hydatid cysts. *World J Gastroenterol.* 2015 Jan 7;21(1):124-131.



Type CL: Cystic lesion



Type CE1: Hidatid sand



Type CE2: Daughter cyst