

Organ-preserving spleen surgery in children

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Background and aims. The presence of non-parasitic cysts and benign tumors in spleen are common indications for surgical treatment. Understanding. The role of spleen in immune system function brought us to development of organ-preserving operations on it.

Materials and methods. In the Centers of Pediatric Surgery from 2001 till 2013 we took care of 35 patients with non-parasitic cysts and 3 patients with lymphangiomas of spleen. There were 22 girls and 16 boys among them aged from 7 to 17 y.o. (average age of 11,8 y.o.). In 25 cases malformation was localized in the upper, in 8 cases – in middle and in 3 cases – in lower part of the spleen. In two cases upper pole and middle segments were involved. True cysts were revealed in 15 cases, false ones – in 20.

Results. 31 patients with small spleen cysts were clinically asymptomatic. Abdominal pain, or pain in left hypochondrium appeared when the cysts were large enough. Often physical exercises worsened pain. Sometimes it is possible to reveal abdominal asymmetry with enlargement of abdomen in left hypochondrium with palpable painless tumor-like malformation of elastic consistence there (3 cases). In one girl we observed purulent inflammation of the cyst with high-grade fever, weakness and pain in left hypochondrium. Often the spleen malformation represented itself the sporadic finding on US-exam. That is why US-exam and CT-scan are, main diagnostic methods. Using oblique laparotomy approach in left hypochondrium in our clinic we performed: upper spleen pole resection with cyst – in 5 cases, upper and middle segments resection with cyst – in 2 cases; in 2 cases we performed cyst enucleation. 29 patients we operated laparoscopic ally: in 1 cases – enucleation of the cyst, in 12 cases – spleen pole resection with the cyst, in 16 cases – resection of the cysts walls till the spleen tissue bodies with subsequent bipolar coagulation of the inner layer of the cyst were performed. During these operations we succeeded in preserving of the 70% of normal spleen parenchyma and as a sequence – normal function Postoperative period in all patients was uneventful.

Conclusions. 1. Spleen cysts are usually asymptomatic and represents themselves sporadic US-study (81,5% - in our clinic). 2. Now making the diagnosis of spleen cyst is quite simple. 3. Organ-preserving operations in patients with spleen cysts are operations of choice. 4. Laparoscopic surgery in such cases is preferable.

Form of participation-poster

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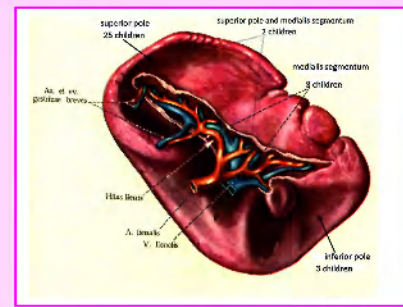
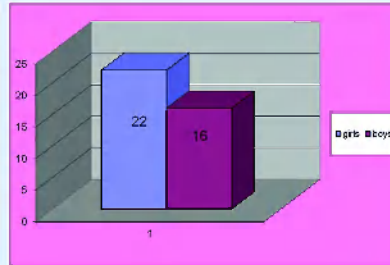
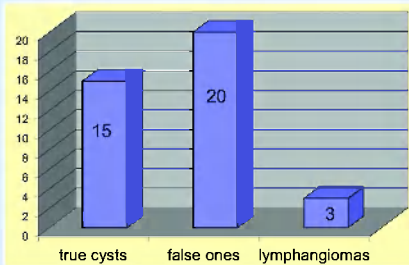
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Non-parasitic cysts and benign tumors in spleen were disposed

35 children with non-parasitic cysts and 3 patients with lymphangiomas of spleen have been treated in the Center of Pediatric Surgery from 2001 till 2013

- The age of 22 girls and 16 boys was from 7 till 17 years (average 11,8).
- True cysts were revealed in 15 cases, false cysts - in 20, and 3 patient had a lymphangioma.



All children had been operated

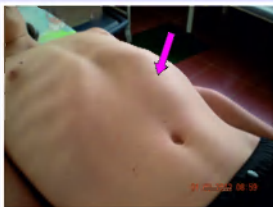
• 29 laparoscopies:

- cyst enucleation – 1
- resection of the cysts walls till the spleen tissue bodes – 16
- spleen pole resection with the cyst – 12

• 9 laparotomies:

- cyst enucleation - 2
- spleen pole resection with the cyst – 5
- upper and middle segmentsresection with cyst - 2

Abdominal asymmetry



Diagnostic US lien's cysts



non-parasitic cyst during oblique laparotomy approach



spleen pole resection with cyst



Diagnostic US lien 3 weeks later after operation



Conclusion :

- Spleen cysts are usually asymptomatic and represents themselves sporadic US-study (81,5% - in our clinic)
- Now making the diagnosis of spleen cysts is quite simple
- Organ – preserving operations in patients with in spleen cyst treatment are operations of choice
- Laparoscopy surgery in such cases is preferable