



# **PEDIATRIC SURGERY UPDATE ©**

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### **Mesenteric Cysts**

Cystic lesions of the mesentery are rare. One-third of patients with these lesions are children with approximately 700 cases reported in the world literature. Mesenteric cysts can be either cystic lymphangiomas or mesotheliomas. They are commonly found in the small bowel mesentery (2/3), followed by the mesocolon (1/3). Most are multilocular varying in size from 3 to 25 cm. In children cystic lymphangioma is the predominant mesenteric lesion. Lymphangioma is a more invasive and larger lesion that sometimes requires concomitant bowel resection. They are lined with endothelium, containing smooth muscle fiber or lymphoid tissue. Mesotheliomas are simple mesothelial cell layer cysts amenable to excision. Clinical presentation is either abdominal pain (crampy in nature), a growing mass, acute bowel obstruction, or hemorrhage into the cyst. US is the initial imaging modality to evaluate a child with this presentation. CT Scan can show extent of cyst involvement. Management consists of resection or marsupialization. Long-term follow-up is advised due to the possibility of recurrence.

### **Laparoscopic Cholecystectomy**

Laparoscopic Cholecystectomy (LC) has become the procedure of choice for the removal of the diseased gallbladder of children. The benefit of this procedure in children is obvious: is safe, effective, well tolerated, it produces a short hospital stay, early return to activity and reduced hospital bill. Several technical differences between the pediatric and adult patient are: lower intrabdominal insufflation pressure, smaller trocar size and more lateral position of placement. Complications are related to the initial trocar entrance as vascular and bowel injury, and those related to the procedure itself; bile duct injury or leak. Three 5 mm ports and one 10 mm umbilical port is used. Pneumoperitoneum is obtained with Veress needle insufflation or using direct insertion of blunt trocar and cannula. Cholangiography before any dissection of the triangle of Calot using a Kumar clamp is advised by some workers to avoid iatrogenic common bile duct injuries during dissection due to anomalous anatomy, it also remains the best method to detect common bile duct stones. Treatment may consist of: (1) endoscopic sphincterotomy, (2) opened or

laparoscopic choledochotomy, or (3) transcystic choledochoscopy and stone extraction. Children with hemolytic disorders, i.e. Sickle cell disease, have a high incidence of cholelithiasis and benefit from LC with a shorter length of postop stay and reduced morbidity.

### **Hemangiopericytoma**

This rare vascular tumor first described in 1942 arises from the contractile cells normally found around capillaries and venules known as pericytes. Roughly 1% of them are found in children. In infants it has a different gross, histologic and biologic behavior recognize as congenital or infantile hemangiopericytoma. The congenital variant is most commonly found in the subcutaneous tissue, head and neck, the extremity and trunk. The tumor is multilobulated, partially encapsulated, soft, spongy, and hypervascular. Usually a solitary and non-tender mass. Microscopy shows branching vascular spaces lined by normal endothelium and elongated, irregular pericytes. Focal necrosis, calcifications and mitotic activity may be found. An assessment of cytologic atypia and mitotic activity is crucial in the anticipation of indolent or aggressive behavior. The uniform behavior of the tumor is benign, but a few cases of recurrence, or even metastatic spread have been reported in infants. Criteria for malignancy are rapid growth of the primary lesion, the appearance of metastatic lesion in subcutaneous tissue or lung, increased mitotic rate, greater cellularity and pleomorphism. The treatment of choice is complete excision with a margin of normal tissue if possible. Spontaneous regression of the remnant tumor has been reported. Longterm follow-up is essential for early detection of metastatic disease.

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