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Mesenchyma Hamartoma

Hepatic mesenchymal hamartoma (MH) is a rare cystic tumor, the second most common benign liver tumor of childhood, occurring more commonly in the right lobe. The infant or child, whose average age is 15 months, is born or develops progressive abdominal distension and palpable non-tender mass. The mass is large, (up to 2500 gm reported) frequently containing cysts filled with clear fluid or gelatinous material. Can be encapsulated, infiltrate or attached to the liver by a pedicle. MH can cause respiratory distress or heart failure from arteriovenous shunting. MH is considered as a proliferative malformation arising from ductal plates. Histologic shows a mixture of loose mesenchymal tissue, bile ducts, connective tissue, and hepatocytes along with cysts formed either from degenerative areas of mesenchyme or dilated bile ducts and lymphatics. Increased levels of alpha-fetoprotein has been found in most cases. CT, US and MRI are diagnostic showing a large, predominantly cystic mass with internal septa. Surgical excision is the treatment of choice. Prenatal diagnosis is suggested when a multicystic mass is found in the fetal abdomen. Though there is evidence that MH regress spontaneously, management consists of complete removal of the tumor. Pedunculated tumors are easily resected. Simple enucleation is preferred for subcapsular lesions. Marsupialization is not recommended. Recurrence or malignant transformation (malignant mesenchymoma) is extremely rare, but careful follow-up of non-resectable tumors is mandatory.

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Femoral Hernias

Femoral hernias (FH) in the pediatric age are very rare accounting for less than 0.5% of all groin hernias in children. Children present with a recurrent groin lump that is usually reducible. The correct preoperative diagnosis is often overlooked. FH is defined as a protrusion of viscera, fat or omentum occurring through the femoral hiatus. Peak incidence occurs between five and ten years of age. Misdiagnosis includes inguinal hernia, lymphadenitis, and lymphangioma. Preoperative diagnosis is possible if the bulge appears in a location inferior and lateral to that of the commonly occurring indirect hernia. Early recurrence of a groin swelling after what seems to be an adequate inguinal herniorrhaphy should be suspected of having a missed femoral hernia. Mc Vay expressed that the etiology was a congenitally narrow posterior inguinal wall attachment into Cooper's ligament with a resultant enlarged femoral ring. Excision of the sac and repair of the femoral canal is curative. At surgery Cooper's ligament (Mc Vay) repair is the surgical treatment of choice, though some contend that simple repair of the femoral ring carries good long-term results.

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Empyema

Thoracic Empyema (TE) is an infection (pus) of the pleural cavity. TE develops after complications of bacterial pneumonia (most commonly), thoracic trauma or surgery. Three distinct phases of TE developments are recognized: exudative, fibrinopurulent and organizing. In the early exudative phase the fluid is thin with a low viscosity and cellular content. Intravenous antibiotics, aspiration or chest tube drainage accomplishes successful management as the lung expands rapidly. This phase can be followed by bacterial invasion, deposition of fibrin, increase turbidity and cellular content with fixed, less expandable, lung tissue known as fibrinopurulent stage. Loculations form, effective closed pleural drains become impossible and antibiotics are less effective in this phase. If left untreated (two to four weeks after primary infection) the TE goes through a final organizing stage with thickening of the fibrinous peel and complete lung entrapment. In

this final stage open decortication may be required. Success in management of TE consists in identifying its early phases followed by thorough debridement and lysing of the pleural space of all fibrinous material, adhesions and loculations during the fibrinopurulent phase before fibrosis begins. Indication for video-assisted thoracoscopic debridement includes lack of medical response, pulmonary air leakage, localized effusion, persistent respiratory distress and pleural thickening without resolution on imaging (US or CT Scan). Thoracoscopic debridement and irrigation have accomplished this goal in several series of children reducing complications from open thoracotomy and hospital stay. Early thoracoscopy facilitates removal of restrictive purulent debris, decreases parenchymal injury, promotes rapid recovery and has a high rate of success. Benefits include good visualization of the entire thoracic cavity for more effective debridement and efficient drainage, and subjectively diminished postoperative pain and associated morbidity.

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