



PEDIATRIC SURGERY Update 8

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Abdomino-Scrotal Hydrocele

Scrotal hydrocele is fairly commonly seen in infants. Most scrotal hydrocele will disappear during the first year of life of the child as the fluid accumulated in the tunica vaginalis after the processus vaginalis have closed disappears. Abdomino-scrotal hydrocele (ASH), also known as *Ahydrocele en bissac*[®], is a very rare condition seen in infants consisting of a collection of fluid in the tunica vaginalis extending through the inguinal canal into the abdominal cavity. Clinically, the child with an inguino-scrotal hydrocele has an abdominal mass of variable size and firm consistency characterized by increase in tension of the hydrocele when squeezing the abdominal mass and viceversa. The abdominal compartment can be retroperitoneal or properitoneal. An increasing pressure within the hydrocele is transmitted above the deep inguinal ring because of the inexpandible musculofascial covering of the inguinal canal. The diagnosis of an abdomino-scrotal hydrocele is made with the help of ultrasound or MRI showing the fluid filled cavities in both the abdominal (pelvic) and scrotal compartments in communication. ASH should be differentiated from other cystic tumors of the abdominal cavity such as hydronephrosis, bladder diverticulum, mesenteric cysts and lymphangiomas. ASH has been found to cause obstructive uropathy, reduced blood supply to the testis or hemorrhage. Total excision of the abdomino-scrotal hydrocele through an inguinal approach is the proposed treatment of choice.

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Group B Streptococcus associated Diaphragmatic Hernia

Group B streptococcus (GBS) is a possible cause of chorioamnionitis, endometritis and urinary tract infections in pregnant woman. Maternal transmission of GBS occurs following fever during labor, the rupturing of membranes for more than 18 hours before delivery, prematurity and chorioamnionitis. Group B Beta Hemolytic streptococcal (GBS) infection among newborn infants is usually confined to lung pneumonia, sepsis or meningitis with a high mortality rate. An association between GBS lung infection and late-onset diaphragmatic hernia development has been reported previously. Whenever a child has radiologic evidence of opacification of the diaphragm, persistent atelectasis of the lower lung lobes or an evolving pleural effusion, the diagnosis of late-presentation diaphragmatic hernia should be entertained. The mechanism for the association between GBS and late-presentation right diaphragmatic hernia focus on the abnormal pulmonary compliance produce by the GBS inflammatory process which delay visceral herniation splinting the defect buttressed by the liver. When the GBS inflammation subsides, the intrathoracic pressure reduces promoting the herniation of visceral content through the diaphragm. Diagnosis is made with simple chest films. Management of the late-presenting diaphragmatic hernia is operative after the pneumonia is gone. Prognosis is excellent in most cases.

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Ribs Exostosis

Exostosis of the ribs is a rare benign condition seen sporadically or most commonly as manifestation of a genetic disorder known as Hereditary Multiple Exostosis (HME). Children with exostosis of the ribs can develop acute or chronic thoracic pain, hemothorax, pericardial effusion, localized bronchiectasis, brachial plexus palsy and blood vessel entrapment, or create disfiguring bony deformities. Hereditary multiple exostosis is characterized by osteochondroma development in multiple areas of the body. HME is

inherited as autosomal dominant, commonly diagnosed by the first decade of life, affecting mainly the long bones of the extremity. The rib exostosis associated with HME can protrude toward the thoracic cavity pleural space and produce hemothorax or pleural effusion due to direct irritation of the diaphragm or pericardium by the sharp growth. Diagnosis is made with CT-Scan. Management consists of resection of the exostosis or the rib either by open thoracotomy or video-assisted thoracoscopy in symptomatic individuals. Prognosis is good in most cases.

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