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Cardiac Tamponade

Vascular access using central lines is essential in managing acutely ill, chronically disease and cancer pediatric patients. Vascular access can be obtained either through the neck or groin using the external jugular, internal jugular, subclavian or saphenous vein. Potentially lethal complications of central venous catheter placement consist of arrhythmias, pneumothorax, hemothorax, vascula injury and cardiac tamponade. Cardiac tamponade is some very rare complication of venous access. Tamponade may be an acute or late complication and is usually associated with the effusion of intravenous fluid into the pericardium. Most cases occur acutely during intraoperative placement. In either setting symptoms of tamponade includes chest pain, hypotension, increase central venous pressure, low oxygen saturation, bradycardia and cardiac arrest. The perforation can occur in the superior vena cava, atrium, ventricle or pulmonary artery. Immediate recognition of pericardial tamponade followed by pericardiocentesis are crucial factors in survival. Contrast infusion is valuable in evaluating this complication of central line placement. In children, most central venous access should be performed in the operating room whenever possible. After insertion, position of the catheter in the central venous circulation should be documented by radiographic means on a hard-film copy. Any deviation in the child=s hemodynamic stability during placement or afterward should herald the coming of a lethal complication and managed accordingly.

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Accessory Splenic Torsion

It is estimated that 10% of the general population carries an accessory spleen. Accessory spleens are situated on the hilum of the spleen, splenic artery, pancreas, splenocolic ligament, greater omentum, mesenterium, adnexal

region and scrotum. Trauma, torsion and hematologic hemolytic conditions affect an accessory spleen. A careful search should be made for accessory spleens, as they should be removed at the time of primary splenectomy to avoid a second operation later in life. Torsion with infarction of an accessory spleen must be considered as a rare cause of acute abdominal pain in childhood. Accessory splenic torsion causes acute diffuse or localized (left upper quadrant) abdominal pain sometimes undistinguishable from that caused by acute appendicitis or intussusception. Most affected children develop an intraperitoneal inflammatory mass. Preoperative diagnostic imaging is unable to point to the diagnosis. Ultrasound shows a round, hypoechoic, solid mass. CT Scan demonstrates a low-density mass with peripheral enhancement after intravenous contrast medium. MRI can be helpful in the differential diagnosis of infarction by suggesting hemorrhagic necrosis on the T2-weighted images. Diagnosis is corroborated during laparoscopy or laparotomy. Accessory splenectomy is curative.

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Sinus Histiocytosis

Sinus histiocytosis with massive lymphadenopathy (SHML), also known as Rosai-Dorfman disease, is a benign condition that occurs mainly in children, characterized by a protracted course with painless bilateral enlargement of the cervical lymph nodes, fever, leucocytosis, mild anemia, raised erythrocyte sedimentation rate and hypergammaglobulinemia. Extranodal involvement in SHML occurs in the skin, upper respiratory tract, and bone. Diagnosis is confirmed with histologic evidence of involved lymph nodes characterized by an exuberant intrasinusoidal histiocytic proliferation. SHML can be associated with retropharyngeal obstructive symptoms, mediastinal enlargement and

orbital enlargement. Prognosis has been found to correlate both with the number of nodal groups and number of extranodal system involvement. Children with SHML may have a variably expressed immunodeficiency that predisposes them to recurrent infections. In general, management is expectant waiting for spontaneous regression. Cytotoxic chemotherapeutic agents have been utilized for life-threatening complications of SHML.

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