Acute Scrotum

The term acute scrotum refers to signs and symptoms associated with local inflammation of the scrotum that appears suddenly and usually is not associated with trauma. It is a common urological emergency. Such signs and symptoms include scrotal pain, swelling, redness and heat. The most common causes of acute scrotum in children constitute testicular torsion, appendix testis torsion, epididymitis, orchitis and pyocele. Testicular torsion, a surgical emergency, occurs in 15% of all cases and is the most important condition to diagnose and manage early in order to avoid testicular loss, fertility problems and medicolegal issues. Testicular loss commences past the twelve hours of initiation of symptoms. Beyond twenty-four hours of symptoms testicular loss in the norm. This is the main reason why in the absence of ancillary studies surgeons immediately explore the acute scrotum. The two most commonly used preoperative studies are testicular scan and color Doppler ultrasound. Testicular scans reliable show whether the testes have vascular flow or not, but are difficult to be obtained in the middle of the night. Doppler ultrasounds are operator dependant and when done by experienced physician can help reduce the number of emergency operations and hospitalization days. Clinical judgement by the surgeon is probably the most important factor in assessing testicular salvage. In the face of doubt the next step in management is immediate surgical scrotal exploration.

References:
5- Ben-Meir D, Deshpande A, Hutson JM: Re-exploration of the acute scrotum. BJU Int. 97(2):364-6, 2006

Pinch Off Syndrome

Implantable central venous catheters constitute a necessity for the management of long term intravenous nutrition and chemotherapy. Implantable central venous access devices placed via the subclavian vein may become obstructed by thrombosis, impingement against a vein wall, or compressed between the clavicle and first rib. Compression of the
catheter between the clavicle and first rib is known as pinch-off syndrome (POS). Beside obstruction, pinch-off syndrome can cause fragmentation, fracture or rupture of the catheter causing embolization of the released fragment of tubing. Mechanical friction against the catheter has been well established as the mechanism for most fractures. POS is characterized by intermittent catheter malfunction in conjunction with radiologic evidence of catheter compression. Warning signs of POS include difficulty withdrawing blood samples and resistance to infusion of IV fluids. Catheter transection with migration of the catheter into the heart or pulmonary artery may be accompanied by the sudden onset of chest pain, palpitations, and arrhythmias. Electron microscopic scanning tends to prove that the catheter's rupture is caused by a fatigue process. Treatment of POS is removal of the catheter. If the tip of the catheter has embolized, it can usually be retrieved percutaneously with a transvenous snare. POS can be prevented by using the internal jugular vein for access rather than the subclavian vein.

References:

Falciform Ligament Abscess

The falciform ligament is a parasagittal structure which extends from the umbilicus to the diaphragm containing the ligamentum teres and remnants of umbilical veins. It has an intrahepatic course between the quadrate lobe and the left lobe of the liver communicating with the portal triad. It is very rare to develop a falciform ligament abscess in children. Falciform ligaments abscess present with fever, leukocytosis, postprandial fullness and a right upper quadrant mass. Computerized axial tomography (CAT scan) is the essential tool in arriving at a correct preoperative diagnosis demonstrating a cystic cylindrical mass in the anterior abdomen that courses the falciform ligament while helping define the relationship of the vascular structures at the porta hepatis. Most cases are associated with infection from the umbilicus, gallbladder or a concomitant infected ventriculo-peritoneal shunt. Portal pyemia is another complication associated with falciform ligament abscess. Management consists of intravenous antibiotics and percutaneous drainage.

References:

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