Ventriculo-Gallbladder Shunts

When dealing with hydrocephalus in children the preferred method of drainage by neurosurgeons is the use of ventriculo-peritoneal shunting. Ventriculoperitoneal shunting may become dysfunctional due to repeated infections, intraabdominal adhesions, peritonitis, multiple abdominal surgical procedures, cerebrospinal fluid cysts or loculations, and other anatomic causes. When the peritoneum is useless as absorptive medium for CSF fluid, other alternatives previously used include the central venous system (atrium), pleural cavity, gallbladder, stomach, ureter and even fallopian tubes. The ventriculo-cholecystic (gallbladder) shunt is an attractive alternative when the intraperitoneal and intravascular route is not longer available. Ultrasound and nuclear studies of the gallbladder should be performed preop to determine absence of sludge or stones and adequate bile emptying. A fenestrated piece of distal shunt within the gallbladder lumen connected by a metal device to the proximal shunt catheter will provide the placement of the purse string in the gallbladder fundus. The gallbladder remains functional and revisions free. In several series involving the use of ventriculo-gallbladder shunts the long-term patency rate is above 75%. Infection and obstruction are the most common complications.

References:

Esophageal Lung

Esophageal lung refers to a very rare congenital bronchopulmonary foregut malformation where there is an anomalous connection of a main stem bronchus with the esophagus or stomach instead of the trachea. Esophageal lung anomaly usually occurs in the right side with no sex predilection. This anomaly arises when independent collections of cells with respiratory potential arise from the primitive esophagus caudal to
the normal lung bud or when part of the lung bud originates from the dorsal esophagus instead of the ventral laryngotracheal tube. Associated anomalies consist of esophageal atresia, tracheoesophageal fistula, and cardiac defects. In cases of esophageal atresia, the distal esophagus where the esophageal lung is connected through a bronchus arising from it. The most common clinical presentation is recurrent lower respiratory tract infections, atelectasis, and bronchiectasis arising from this lung which is usually hypoplastic and unilobar. Diagnosis is made with contrast study of the esophagus, trachea and CT Scan. The esophageal lung receives its blood supply from the pulmonary artery different from a sequestration where the blood supply comes directly from an aortic branch. Drainage occurs via the inferior pulmonary veins. Management of esophageal lung consists of resection of the destroyed hypoplastic lung with repair of the esophageal communication. In early cases where the esophageal lung is not destroyed, it has been reimplanted to the trachea.

References:

Histiocytosis

Histiocytosis refers to a general term used for a group of syndromes that involves an abnormal increase in the number of immune cells known as histiocytes. The three major types of histiocytosis are Langerhans's cell (histiocytosis X), malignant histiocytosis syndrome (T-cell lymphoma), and non-Langerhans's histiocytosis (hemophagocytic syndrome). Histiocytosis X is the most common, and is type of autoimmune condition in which the immune cells attack the body by mistake. Extra-immune cells may form tumors which affect the bones, the skulls and other areas of the body. Most cases are children within the ages of one to 15. Up to 50% of patients with either the single or multi-organ manifestation of Langerhans' cell histiocytosis initially present with cutaneous symptoms. Symptoms depend on the system affected such as abdominal pain, bone pain, irritability, fever, swollen lymph nodes, etc. Children above age five often have bone involvement. Punch-out lesions in bone x-ray are characteristics. Management of Histiocytosis X consists of immunosuppression, chemotherapy and radiotherapy. A localized self-limited cutaneous form of the disease can be managed with complete surgical excision. Three types of skin lesions usually
occur: nodules (common), scaling, or crusted papules and soft, yellow papular xanthomas.

References: