



# **PEDIATRIC SURGERY *Update* ©**

## ***Vol 18 No 04 APRIL 2002***

### **Birth Fractures**

Injury during birth is not an uncommon event. Birth fracture includes clavicular, skull, nasal, ribs and long bones. Clavicular fractures (CFx) are the commonest birth injury caused by excessive pressure on the shoulder from the symphysis pubis. Cfx occurs in macrosomic infants, in those with shoulder dystocia and is associated with injury to the brachial plexus. In most cases this injury cannot be predicted prior to delivery. Diagnosis is confirmed by x-ray. Management is expectantly with complete recovery in most cases. Skull fractures result from difficult delivery and use of vacuum extractor and can be either linear or depressed. Linear fractures are observed, while depressed fractures might need surgery. Very rarely the underlying brain is damaged. Nasal birth trauma can cause dislocation of the cartilages of the septum with deviation of the nose. Management consists of realignment of the septum (Playfair Maneuver) to avoid long-term nasal airway obstruction. Being obligate nasal breather if the injury reduces the airway passages the baby may have feeding problems needing nasogastric support. Ribs fractures occur very rarely after difficult forceps delivery of large babies. Management is expectancy. Long bones fractures (humerus and femur) occurs after difficult breach delivery, twin pregnancy and prematurity. Babies born with spinal dysraphism can sustain femoral fractures during birth. Bandage protection, traction, spica cast or splint support might be needed depending on the fracture and angulation. Cases with birth injuries have longer hospital stay and higher mortality.

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## Spilled Gallstones

Gallbladder rupture with gallstone spillage occurs more frequently after laparoscopic (5%) than open cholecystectomy. It is generally caused by injury with an electric knife during dissection of the gallbladder bed, injury during gallbladder retraction with grasping forceps, injury during gallbladder extraction from the abdomen, and slippage of cystic duct clips (potentially causing bile and stone spillage). Reports describe postoperative instances of small bowel obstruction, intraabdominal, abdominal wall and subcutaneous abscess developing. A concerted effort should be made to remove all stones spilled in the peritoneal cavity. The necrotic, friable gallbladder should be immediately placed in an endoscopic bag upon completion of the dissection, copious lavage of the peritoneal cavity to evacuate spilled bile should follow, and a therapeutic course of broad-spectrum antibiotic should be instituted. Conversion to laparotomy is not justifiable. Patients can presents weeks to months postoperatively with vague abdominal complaints, fever and leukocytosis. Computed tomography reveals inflammatory foci involving intraperitoneal gallstones. Management might require percutaneous or operative drainage of the infectious collections. All affected patients should be informed to hasten early diagnosis of later complications.

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## Pancreatoblastoma

Pancreatoblastoma (PB) is a juvenile adenocarcinoma of pancreas occurring rarely in the pediatric age group. The tumor presents during early childhood (mean age four years), affects mostly males and is associated with the Beckwith-Wiedemann syndrome. PB is a large malignant tumor composed of epithelial tissue with acinar differentiation. Most cases originate in the head of the pancreas. Though being a slow growing tumor, local invasion to duodenum, stomach and peritoneum occurs. Children presents with palpable mass, pain and abdominal distension. Rarely do they develop jaundice. AFP and LDH levels can be

elevated. One-third of the cases develop metastasis (liver and lung) US and CT-Scan confirms the presence of a solid multilobulated tumor. Percutaneous needle biopsy is diagnostic. Management consists of wide local excision which usually entails pancreaticoduodenectomy. Preop chemotherapy has made unresectable tumor be resectable. Recurrent or residual disease can be managed with radiotherapy a/o chemotherapy. Prognosis is guarded.

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ISSN 1089-7739