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Internet Part 2

The Internet consists of thousands of interconnected networks. It works by way of local and long-drag connections, routers, servers, protocols and browsers. LOCAL: Using regular telephone lines and a modem your personal computers connect to the internet service provider (ISP) or if university-based to a local area network (modem or cable type). The slower of the two modems is the usual speed of connection. LONG: ISP connects to larger network service providers (NSP), the backbone of the Net using digital lines (T1). The data finds its way between computers through devices called ROUTERS. Information send through the Net is broken in small packets and routers function is to get those packets where they belong (IP address). It doesn't matter the path is takes to reach his destiny (> 10,000 packets/second). Real-time multimedia can suffer from router lassitude. The information in the Net originates within SERVERS - computers dedicated to serving data. PROTOCOLS are established to set how two computers communicate with each other. The TCP/IP protocol is the language of all Net computers. Protocols are embodied in BROWSER software (i.e. Netscape or MS Explorer) that help us navigate through the Net and are established by the Internet Engineering Task Force.

Pancreatic Trauma

The pancreas fixed retroperitoneal location juxtaposed to the bony spine makes it vulnerable to minimal trauma. A direct blow (bike handlebar, fist or hockey stick) from blunt abdominal trauma can lead to contusion, laceration or transection of the organ. Clinically the child will develop abdominal pain, vomiting, and signs of peritoneal irritation. Pancreatic injury is most commonly recognized in trauma patients that are immediately explored due to hemodynamic instability, increase blood transfusion requirement, or hemorrhagic shock associated to non-pancreatic injury. Other times there is isolated pancreatic injury identified by a rising amylase/lipase or after imaging studies. With the recent tendency toward conservative management of solid organ injury more reliance is placed on diagnostic clinical indicators (serum enzymes, ultrasound, CT-Scan findings, and ERCP) that help distinguish

between minor and major injuries. Primary difficulty with conservative strategy is diagnosing major pancreatic injury. Untreated major pancreatic ductal injury leads to prolonged morbidity (longer stay from pancreatitis, pseudocyst formation, peripancreatic abscess formation, and post-traumatic ductal stricture). Minor injuries (contusion) have flat enzyme elevation with time and are managed conservatively with gut rest, NG decompression and TPN. Major injuries (gland transection, ductal laceration, and injuries resulting in pseudocyst formation) can be shown in CT-Scan, US, or ERCP; have consistently rising enzyme elevation and will need early surgical resection (distal pancreatectomy with splenic preservation), debridement a/o drainage.

FIA

Fistula-in-ano (FIA) practically occurs in male children during their first year of life. The pediatric incidence is low as judge by the scant literature. Most FIA has a single external orifice to either side of the anal canal, are superficial (low), communicates directly passing through the lowest fibers of the internal sphincter to open at the level of the anal valves. They are believed to be developmental anomaly caused by abnormal crypts of Morgagni that trap bacteria and initiates a cryptitis turning into either a perineal abscess or FIA. The perianal abscess is believed to be the parent if the FIA. 75% of males with FIA elicit history of perineal abscess. The presence of columnar, transitional and stratified squamous epithelium lining the tract is evidence of a congenital origin of FIA (entrapped migratory cells from the urogenital sinus development). FIA is managed with excision and laying opened the tract. Recurrences are common. Up to 15% of Crohn's children present with FIA.

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