'Double-bubble' sign due to air seen in the stomach duodenal proximal to the pylorus, then in the duodenum between obstruction Liver-displacement of bowel gas away from the right the pylorus and point of obstruction upper quadrant Spleen - displacement of bowel gas away from left upper Crescent-shaped air collection under the diaphragm or in organomegally a non-dependent location on lateral decubitus films-Kidneys-renal outline (between T12 and L2) enlarged best seen on the right where not obscured by stomach (e.g. polycystic kidneys) Rigler's sign (gas on both sides of the bowel wall making the serosal surfaces of the bowel easy to see) Small bowel—centrally located, mucosal valvulae conniventes cross the bowel wall, loops dilated >3 cm diameter Falciform ligament sign (thin straight line from right upper · Number of loops and air-fluid levels increases with quadrant to umbilicus, outlined by air) more distal levels of obstruction • Multiple air-fluid levels creates a 'ladder' appearance Subphrenic abscess—circumscribed air collection above extraluminal · 'Sentinel loops' - limited sections of dilated small bowel the liver which may have an air-fluid level adjacent to inflammatory lesions (e.g. pancreatitis, Gas in biliary tree-branching frond-like streaks of airappendicitis) normal after sphincterotomy or after biliary surgery; abnormal causes are fistula between biliary tree and bowel Large bowel-peripherally located, mucosal haustrations obstruction bowel, ascending cholangitis only partially cross the bowel wall; gas contained within large bowel if the ileocaecal valve is competent; loops Portal venous gas—similar appearance to gas in biliary dilated >5 cm; caecum >9 cm tree-seen with ischaemic bowel, including toxic megacolon and necrotising enterocolitis In mechanical obstruction may see a 'cut-off' sign-with the presence of faeces distal to the point of obstruction, Pneumotosis intestinalis—gas within the bowel wall; can an interface between the air-filled colon and solid matter is progress to pneumoperitoneum; poorly understood and apparent may be benian Faecal material has a mottled appearance Calcified costal cartilages Atherosclerotic vessels (aortoiliac, splanchnic) AXR Sigmoid-single large ovoid dilated large-bowel loop fills Phleboliths in clotted pelvic veins the lower abdomen Mesenteric lymph nodes volvulus Caecal—single large dilated large-bowel loop fills the left Prostate gland upper quadrant creating an 'empty caecum' sign Porcelain gallbladder Pancreatic speckling in chronic pancreatitis Uterine fibroid Grossly dilated large bowel (>8 cm diameter), usually Teratoma • toxic calcifications transverse colon; oedematous bowel wall produces an Appendicolith megacolon indented mucosal appearance—'thumb-print' sign Renal parenchymal calcification—renal tubular acidosis, hyperparathyroidism, medullary sponge kidney Stones: gastric Distended air-filled stomach seen with any cause of · renal tract-from large complex staghorn calculi in the dilatation gastroparesis renal pelvis to single or multiple stones along the line of the ureter (along transverse processes, crossing the sacroiliac joints to run medial to ischial spines) and in Diffuse hazy appearance to whole film with loss of clarity ascites the bladder of structures biliary—less often radio-opaque Biliary tree gas Nasogastric, transpyloric and percutaneous gallstone Small bowel obstruction enterogastrostomy tubes ileus Gallstone-usually large stones which fail to pass beyond Femoral venous lines the ileocaecal valve Inferior vena cava filters Vascular stents devices Tenckhoff catheter Lytic lesions Transjugular intrahepatic portosystemic shunt (TIPS) Paget's disease fractures Surgical clips Fractures - spinal fractures are easily missed if you don't Stoma rings systematically look for them Intrauterine contraceptive device Vaginal pessaries