

Incidentally Detected Radiopacities in X-Rays of the Abdomen and Lumbar-Sacral Spine: A Pictorial Essay

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Introduction: Incidental radiopacities (IR) are commonly seen in routine X-rays. Those may be incidental findings or directly related to the underlying pathology. Deposition of calcium can occur in normal anatomical structures as an age-related phenomenon. Similarly, the presence of calcification in certain organs /structures indicate a pathological abnormality in those areas. Eg: pancreatic calcification. Presence of calcific density in an organ/structure itself may be the pathology in a certain situation Eg; Ureteric calculi.

Objective: To describe the important X-ray imaging appearances of additional radiopaque densities in a pictorial essay.

Methodology: Total of 556 routine X-rays of the abdomen and lumbar-sacral spine were reviewed and IR were identified in 56 X-rays. IR were confirmed by computed tomography (CT) in 12 and by ultrasonically in 34 cases and radiological features were described.

Results: Renal, ureteric and bladder calcifications: Calcifications were seen within the calyceal system, renal pelvis, ureteric pathways and bladder. Those single or multiple and appearances are well defined or branching type calculi. Lower ureteric calculi should be differentiated from phleboliths.

Gallbladder and pancreatic calcifications: Gall bladder calcification appeared in right hypochondrium as single or multiple calcific densities with various shapes. Porcelain gallbladder appeared as eggshell calcification around gallbladder wall. Calcification in the epigastric region was associated with calcification in chronic pancreatitis

Vascular calcifications: Very common in old age. Aortic and iliac calcifications were common and few were associated with the peripheral vascular disease.

Pelvic calcification: Calcified fibroids and dermoid cysts were common and identified as ill-defined calcific masses in the pelvis

Iatrogenic structures: Foreign bodies, intrauterine contraceptive devices, ureteric/biliary stents, vascular filters, and calcification within bowel loops had characteristic shapes to identify them.

Conclusion: Incidental radiopacities are often visible on plain film radiographs. Knowing the characteristic nature and the site of these calcifications would support the physician to determine the treatment for the condition or to request further investigations.

Keywords: Calcifications, Radiopaque, X-ray Abdomen, X-Ray Lumbar-Sacral Spine, Incidental Findings

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