Milk of calcium in renal cysts

A 37-year-old male patient was presented with a right flank pain. An abdominal plain X-ray film in upright position was obtained which showed multiple layered calcific densities in the half-moon configuration.

Imaging Findings:

The 37-year-old male patient was examined because of right flank pain. The physical findings, hematological examinations, serum biochemical examinations and the urinalysis were found to be unremarkable. An abdominal plain X-ray film in the upright position was obtained, which showed multiple layered calcific densities at the right upper quadrant, confirming the presence of a renal milk of calcium cyst.

Discussion:

The renal MOC cyst is a cyst in the kidney, which contains a colloidal suspension of precipitated calcium crystals, usually calcium carbonate, in the cystic fluid. The granules layer out in the dependent position of the cyst. It is mostly seen in the calyceal diverticula, but may also be seen in simple cysts or in polycystic kidneys. The etiology of such cysts is not clearly known. Patients with this condition lack typical symptoms and most of these cysts are detected as an incidental finding, but may mimic urinary calculi. It may sometimes be complicated by the formation of renal calculi or by an infection. By a routine radiographic exam in the supine position, it may be difficult to see the characteristic findings. But the typical “half-moon” configuration, which appears due to the fluid–calcium layer is easily detected on the upright films or by a CT examination. It can be misdiagnosed as renal calculi or as a calcified renal mass. The classical ultrasound finding is that of the gravity-dependent, echogenic shadowy material found in a renal cyst. The results of sonography in the supine position can be confusing unless the layering is clearly demonstrated and may be misinterpreted as renal lithiasis. This entity should be considered in the differential diagnosis of renal calculus, renal calcifications, and MOC of the gallbladder. The prompt diagnosis of a renal MOC cyst and its differentiation from a renal calculus will help to avoid unnecessary surgery, or extracorporeal shock wave lithotripsy.

Differential Diagnosis List: Renal milk of calcium cyst.

Final Diagnosis: Renal milk of calcium cyst.

References:

Description: An abdominal plain X-ray film taken in the upright position revealing the multiple layering of calcific densities at the right upper quadrant. Origin: