Bilaterally-complicated horseshoe kidney associated to situs inversus with levocardia: A case report

Gadelkareem, R.A.

Abstract:

Aim: To present a very rare case of bilaterally-complicated horseshoe kidney by nephrolithiasis in a patient with situs inversus with levocardia and skeletal anomalies. Case Report: A 41-year-old female presented by right loin pain. Abdominal ultrasound showed bilateral kidney stones with malrotation, right mild hydronephrosis and transposition of the abdominal organs. Chest X-ray showed the heart normal in the left side. Also, computed tomography revealed a horseshoe kidney with bilateral stones. After counseling the patient about the stones treatment options, she preferred extracorporeal shock-wave lithotripsy which was tried on the right side firstly, but it failed. So, percutaneous nephrolithotripsy was scheduled. Discussion: Situs inversus is a spectrum of congenital anomalies. Situs inversus totalis is the commonest variety and was reported with renal congenital anomalies like horseshoe kidney, acquired renal diseases like renal cell carcinoma, and in living kidney donation. However, situs inversus with levocardia is a rare variety with a known association to the congenital heart defects. Its association to a complicated horseshoe kidney and scoliosis could not be found in the English literature before the current case. Moreover, absence of congenital heart defects is extremely rare. Conclusion: Association of situs inversus with levocardia to skeletal anomalies and complicated horseshoe kidney is a unique situation. It indicates meticulous evaluation and management.

Keywords:

Horseshoe kidney; Levocardia; Nephrolithiasis; Situs inversus

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