



FOCAL RENAL LYMPHANGIOMATOSIS, INCIDENTAL FINDING:A CASE REPORT

Radiodiagnosis

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ABSTRACT

Renal lymphangiomas are rare benign disorders caused due to lymphatic obstruction. This benign mesenchymal neoplasm is characterized by numerous intercommunicating cystic spaces containing lymphatic fluid. It can be focal/unilateral or diffuse /bilateral. Patient may be asymptomatic or may present with symptoms such as flank pain or may have renin dependent hypertension. Here we report a case of 32-year old female with focal renal lymphangiomas. The purposes of this study is to enumerate the radiological appearance of rare case of focal unilateral renal lymphangiomas.

KEYWORDS

Kidney, Lymphangiomas, Ultrasonography, Computed Tomography

INTRODUCTION

Renal lymphangiomas are benign developmental disorders caused due to malformation of perirenal lymphatic system. There is failure of lymphatic tissue around kidney to form connection with rest of lymphatic system which leads to formation of multilocular and unilocular cystic masses (1). Renal lymphangiomas are seen in adults and children. There is no sex predilection. This lesion can be misdiagnosed with other ultrasonography and computed tomography helps to diagnose it (2).

CASE REPORT

A 32-year-old female patient presented in outpatient department with complaints of right flank pain which was mild, non-radiating and dull aching in nature for past few days. Patient had no history of burning micturition, hematuria, fever or previous history of renal calculus. Patient was normotensive. Urine analysis revealed clear urine, yellow in colour with pH 5-6, glucose of 80 mg/dl. WBC and proteins were in normal limits. Renal function test and liver function test were normal. Ultrasonography showed large focal, well-defined, multicystic lesion of size 3.1 x 2.9 cm at the interpolar region of right kidney (Figure 1). No intralésional colour flow was noted on Doppler (Figure 2). On contrast-enhanced CT scan the right kidney measured 9.8 x 3.2 cm with multiple non-enhancing cystic lesions in the mid and lower pole showing HU values of 6 s/o clear fluid (figure 4). There was no evidence of calcification or bleed noted within the lesion. Perinephric fat stranding was not present (figure 5).

DISCUSSION

A rare disorder, renal lymphangiomas occur due to failure of lymphatic tissue to communicate with rest of lymphatic system. The site of development of renal lymphangiomas occurs at site of obstruction of lymphatic space, commonest being perinephric space. It is found in patients with monosomy X, trisomy 7q and von Hippel Lindau syndrome (3). On histology, external surface appears smooth, grey, pink or yellowish. On macroscopy, they contain either large interconnecting cysts called as cystic lymphangiomas or small cysts called as cavernous lymphangiomas containing chylous, serous, haemorrhagic or mixed fluid collection (4). Most common site of lymphangioma being cervical followed by axilla with remaining occurring in retroperitoneum, mediastinum, mesentery, omentum, colon and pelvis. Complications include infection, rupture and haemorrhage (5). On ultrasonography, focal renal lymphangiomas appear as well-defined lesions occupying the perinephric space. The lesion contains cystic spaces within. There is no evidence of calcification. On Doppler, there is no vascularity noted. On CECT, it appears as well-defined fluid density collections that are cystic in perinephric or peri-pelvic regions with normal renal parenchymal enhancement. Renal lymphangiomas do not show any invasion into the organs. Presence of fluid or fluid-filled spaces in the retroperitoneum in close vicinity of great vessels as well as crossing the midline at the level of renal vessels is a diagnostic sign of renal lymphangiomas. These are the dilated renal lymphatics which

drain into larger retroperitoneal lymphatics. Thus ultrasonography and computed tomography help in detecting focal renal lymphangiomas (6).

IMAGES:



FIGURE 1: Grey scale ultrasonography shows large focal, well-defined, multicystic lesion of size 3.1 x 2.9 cm at the middle and lower pole of right kidney with remaining renal parenchyma showing normal echotexture

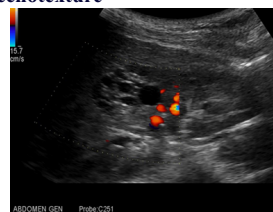


FIGURE 2: No intralésional colour flow was noted on Doppler.

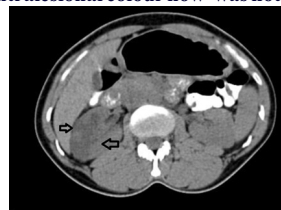


FIGURE 3: On non-contrast CT the right kidney shows multiple cystic lesions in the mid and lower pole which are isodense to renal parenchyma. There was no evidence of calcification or bleed noted within the lesion.

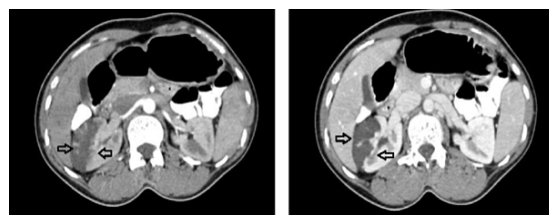


FIGURE 4 and FIGURE 5: On axial contrast enhanced CT scan the right kidney shows multiple non-enhancing cystic lesion in the mid and lower pole with a HU value of 6 suggesting clear fluid .There was no evidence calcification or bleed within the lesion . There is no evidence of perinephric fat stranding.

CONCLUSION

Focal renal lymphangioma is a rare condition and may present a diagnostic challenge especially for the radiologists. Vigilant assessment using ultrasound or other cross-sectional modalities like CT may reveal the multiloculated nature of the lesion.

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