CASE REPORT

RENAL LYMPHANGIECTASIA: A RARE OCCURRENCE

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ABSTRACT

Renal lymphangiectasia is an uncommon benign condition of the renal lymphatics without specific clinical presentation. It may be unilateral or bilateral and has no gender predilection. Knowledge of its imaging findings can lead to correct diagnosis. We present two cases of renal lymphangiectasia with abdominal pain. The imaging findings were consistent with bilateral renal lymphangectasia. Patients were kept on conservative treatment after radiological diagnosis.

Key words: Renal, lymphangectasia, benign.

Introduction

Renal lymphangectasia/ lymphatic malformation (RLM) is benign condition and can be seen in paediatric and adults population without gender predilection. It can be unilateral or bilateral. It is a rare occurrence and constitute 1% of all lymphangiomas. It can have familial predilection however can be developmental or acquired. We present two cases of lymphangectasia with unilateral and bilateral presentation.

The lymphatic drainage of the kidney, and the perinephric region intercommunicate through several large lymphatic trunks within the renal sinus. These lymphatics drain into the retroperitoneal nodes. Impairment in the drainage of large renal sinus lymphatic trunks results in dilatation of intrarenal, peripelvic, and perinephric lymphatics.[1,2]

Renal lymphagectasia is usually an incidental finding with only few patients being symptomatic with abdominal pain, flank pain, abdominal mass, and hypertension.[3] Our patients presented with abdominal pain.

Case Series

Case 1:

23 year old male presented with mild vague abdominal pain since 6 months. His Labs were within normal limits. USG showed hypoechoic area in bilateral renal sinuses, mimicking hydronephrosis (Fig.1a) and CT scan was advised for further evaluation. CT scan performed on 128 prime acquilion scanner showed a non enhancing hypoechoic fluid attenuation lesion in bilateral peripelvic region. On excretory phase it was insinuating into the pelvicalyceal system, stretching the calyces (Fig.1b,d). The imaging features were suggestive of peripelvic renal lymphangectasia. Incidental findings of subcutaneous hemangiomas were also seen in bilateral gluteal regions and left lumbar region (Fig.1c). The presence of hemangiomas in our patient could be incidental finding, as no association of renal lymphangectasia with hemangioma has been reported in the literature. However with few cases of renal lymphangectasia reported, we believe

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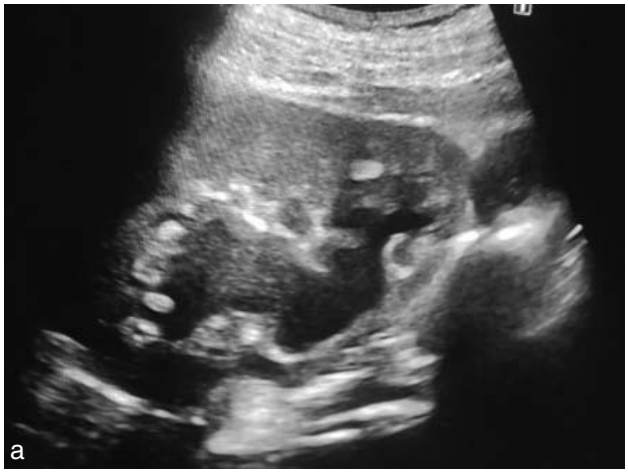
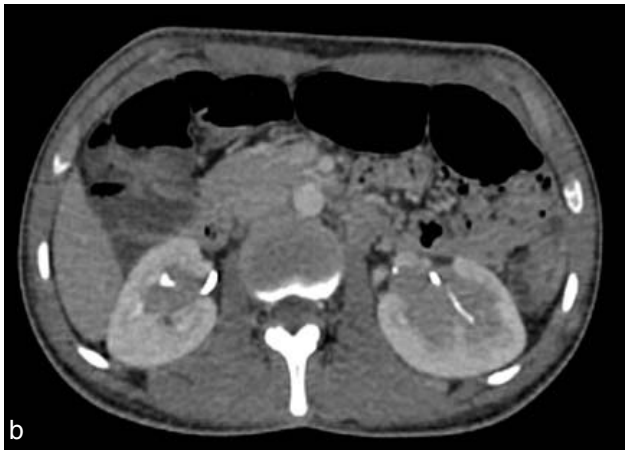
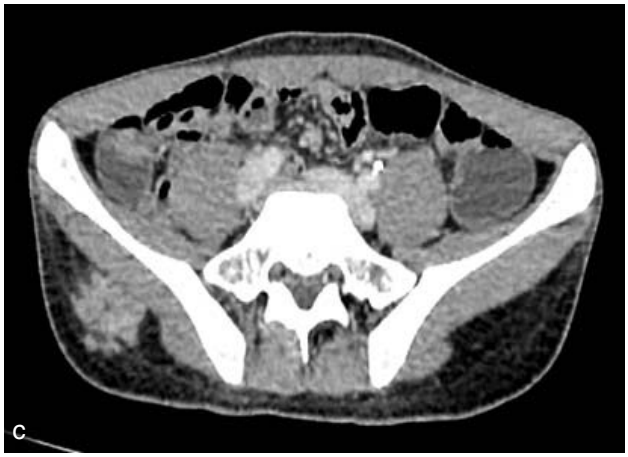
the exact association is yet to be found.There was no other abnormality in the abdomen. The patient was managed conservatively. Routine followup was suggested by the clinical team.







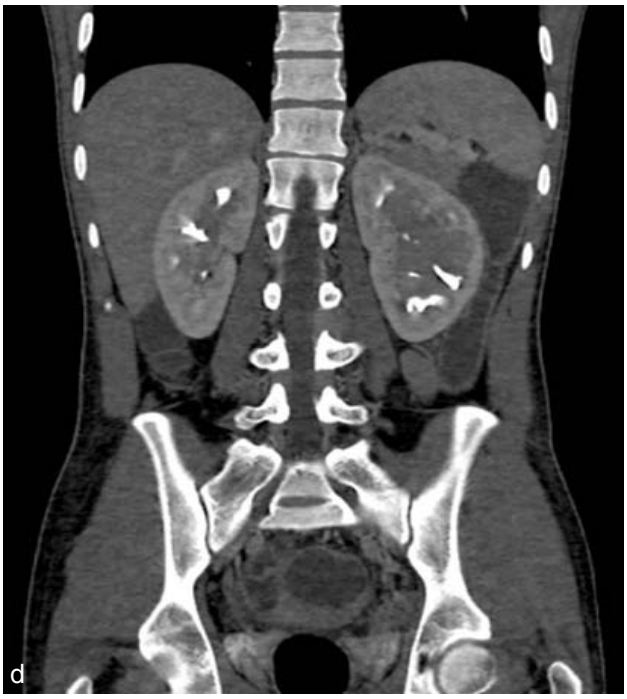
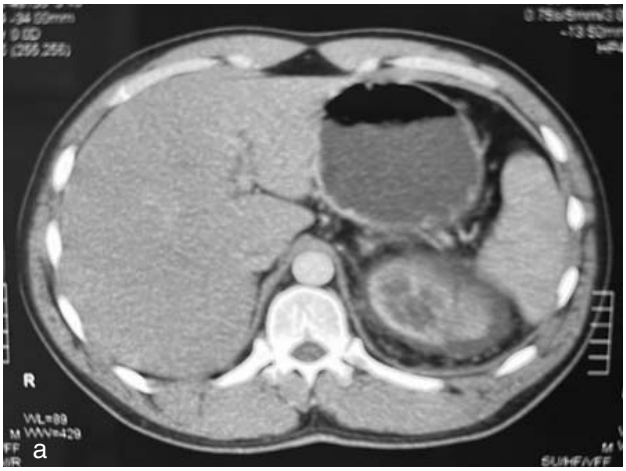
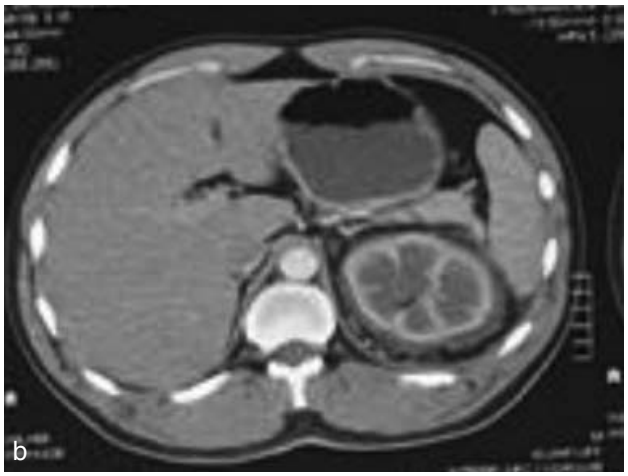


Figure 1a: USG shows hypoechoic area in left kidney mimicking hydronephrosis.
Figure b & d: Contrast enhanced CT shows hypodense lesion in renal peripelvic region. On excretory phase the calyces are separate from the hypodense lesion which is insinuating between calyces.
Figure 1c: Shows subcutaneous hemangioma in right gluteal region.

Case 2:

25 year old male presented with non specific abdominal pain. His lab investigations including CBC, RFTs, LFTs were unremarkable. CE CT abdomen showed left perinephric fluid attenuation lesion without distorsion of renal parenchyma. Mild anterior displacement of left kidney was also noted (Fig.2a,b,c).





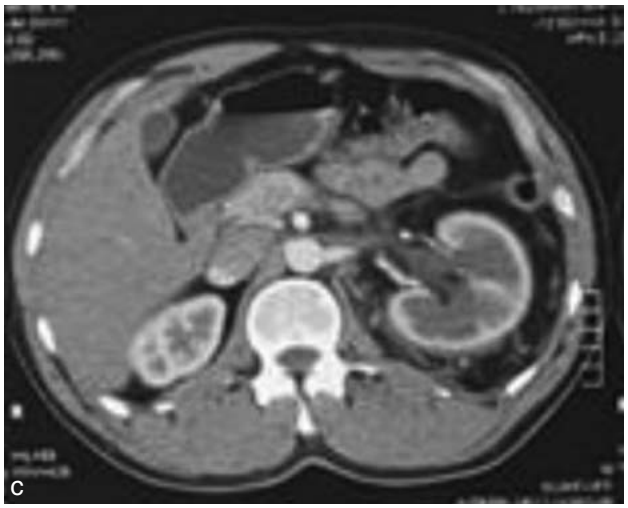


Figure 2a,b,c: Contrast enhanced CT scan shows non enhancing perinephric fluid attenuation area suggestive of perinephric lymphangectasia. There is mild anterior displacement of left kidney.

Patient was successfully diagnosed as perinephric lymphangectasia. Rest of the imaging was unremarkable. Patientwas non hypertensive and was kept on conservative treatment for pain management and routine USG follow up by the clinical team. Patient was reassured that no aggressive management needed.

Discussion

Though renal lymphangectasia is an uncommon entity, typical imagingare helpful to differentiate it from similar conditions. Ultrasound can show variable appearance of renal lymphangectasia such as anechoic cystic lesions in the renal sinus, or in the perinephric regions. Sometimes, cystic lesions are seen in the renal parenchyma, extending into the renal sinus. Another entity called intra renal lymphangioma is a rare one and it can appear as a focal hyperechoic lesion in the renal cortex. In pediatric cases, it demonstrates enlarged kidneys with raised renal cortical echoes and loss of corticomedullary differentiation.[2,4]

CT examination reveals cystic lesions showing fluid attenuationin perirenal, peripelvic, and intrarenal locations. The density of renal lymphangectasia range from 0 to 10 Hounsfield units in uncomplicated cases, however internal hemorrhage may increase its density upto 60 HU. There is no enhancement within the lesion and absence of opacification on delayed scans is an important feature that differentiates this condition from the dilated pelvicalyceal system.5 In rare cases, renal lymphangectasia can also present as fluid collections in retroperitoneum due to dilated lymphatic channels.[1]

The complications include renal vein thrombosis, compressive effect of the perirenal and peripelvic cysts resulting in hypertension, obstructive uropathy, intracystic hemorrhage, and superimposed infection.[1,5]

The differential diagnoses to be considered are polycystic kidney disease, hydronephrosis, multilocular cystic nephroma, urinoma, renal lymphoma, and nephroblastomatosis.

The treatment is usually conservative just like in our cases where the patient presented with abdominal pain. Due to complications such as renal failure and hypertension, periodic follow-up is necessary. Percutaneous aspiration of the collection is another option if the RLM is causing compression on the collecing system. Laparoscopic ablation is yet another option reserved for complicated cases and with multiple recurrences.[1]

Conclusion

RLM although an uncommon entity, being familiar with its imaging criteria can help avoid misdiagnosis and help in early detection of the rare disease.

Conflict of interest: None

Ethical committee: Approved the case series

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