Available online at www.sciencedirect.com

ScienceDirect

journal homepage: http://Elsevier.com/locate/radcr

Case Report

Bilateral perirenal space fibromatosis with renal infiltration: case report and review of literature

Avinash Sabale DMRD, DNB, Anil Pralhadan DNB, Kalirajan Kalidos MD, Krishnankutty Ramachandran MD*

Division of Imageology, Regional Cancer Centre, Room No 26 PACS Room, Trivandrum, Kerala 695011, India

ARTICLE INFO

Article history:
Received 23 August 2016
Received in revised form
7 September 2016
Accepted 8 September 2016
Available online 19 October 2016

Keywords:
Perirenal fibromatosis
Perirenal space
Perirenal lymphoma
Perirenal lymphangiomatosis

ABSTRACT

Fibromatosis and/or desmoid tumors which constitute less than 1% of all neoplasms and 3.0% of all soft-tissue tumors are pathologically benign proliferations of the fibroblasts but are locally aggressive with infiltrative type of growth and tendency toward recurrence. Bilateral symmetrical perirenal involvement has been described in many conditions which can be renal, subcapsular, or perirenal in origin. However, bilateral perirenal fibromatosis as an isolated presentation was very uncommon. We report an exceptionally rare case of bilateral perirenal fibromatosis with renal infiltration.

Case report

A 54-year-old man presented with gradually increasing abdominal distension of four months duration. He had no associated abdominal pain or bowel or bladder symptoms. No history of hypertension or diabetes or other major systemic illness. On examination, large firm to hard masses were palpable per abdomen in both lumbar regions. No evidence of lower limb edema.

On ultrasonography examination, large well-defined hypoechoic masses were seen around the both kidneys in perirenal space. The renal outline was distorted and ill-defined. No hydronephrosis was seen. Displacement of surrounding organs noted.

Contrast-enhanced computed tomography (CT) of the abdomen and pelvis revealed large well-defined, homogeneous, hypodense, minimally enhancing mass lesions in bilateral perirenal spaces, completely encasing the kidneys (Figs. 1-3). The lesions were causing scalloping of the renal cortex. The residual renal parenchymal tissue showed normal contrast enhancement and contrast excretion. Few tiny renal calculi were seen in both kidneys on the

Competing Interests: The authors have declared that no competing interests exist.

* *Corresponding author.*
E-mail address: drsabaleavinash@yahoo.co.in (A. Sabale).

http://dx.doi.org/10.1016/j.radcr.2016.09.006

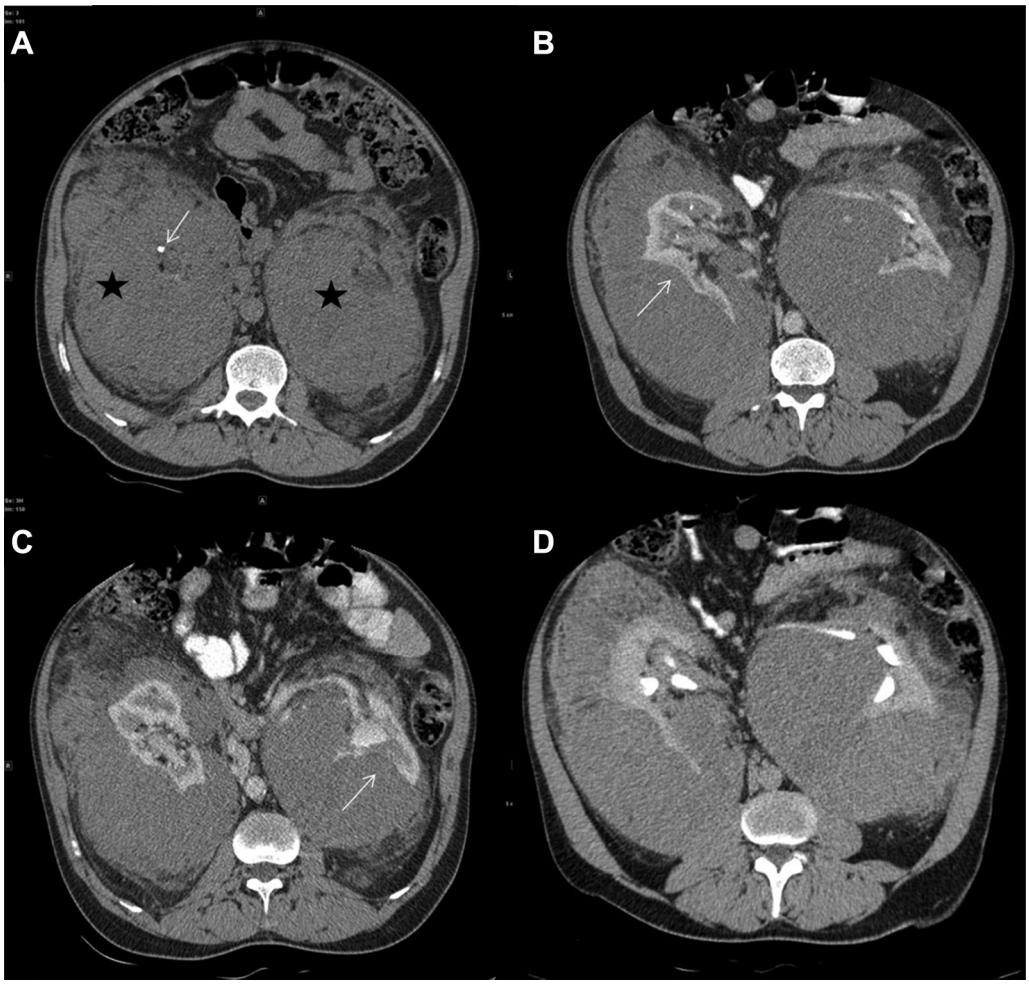

Fig. 1 – A 54-year male patient with perirenal fibromatosis, axial CT scan (A) noncontrast CT axial CT sections at interpolar region of kidney—homogeneous soft-tissue masses (asterisk) in bilateral lumbar region indistinguishable from the kidneys, tiny calyceal calculi (white arrow). (B) Contrast-enhanced arterial phase—bilateral perirenal space homogeneous well-defined masses with renal cortical scalloping (white arrow). Renal parenchymal thinning and distortion are seen. Small and large bowel loops displaced anteriorly. (C) Corticomedullary phase—normal renal parenchymal enhancement. (D) Excretory phase—normal excretion in both kidneys evident by pelvicalyceal system opacification. Minimal prominence of the pelvicalyceal system noted on either side.

noncontrast CT scan (Fig. 1A). No enlarged intra-abdominal lymph nodes were seen. There was no ascites. Laboratory tests revealed normal renal function.

CT-guided biopsy was done from the mass in the posterior perirenal space of left kidney which showed collagen forming spindle-cell tumor with focal myxoid areas within suggestive of fibromatosis (Fig. 4). A final diagnosis of bilateral perirenal fibromatosis involving both kidneys was thus made.

As there was bilateral perirenal disease with renal infiltration, surgical removal was not feasible. Also, the patient had only minimal symptoms with preserved renal function; hence, no active treatment was given, and the patient was kept on follow-up. Clinical follow-up with renal function tests was suggested every 6 monthly. Follow-up ultrasonography abdomen was advised initially 6 months for 1 year and yearly thereafter.

The mass lesions and clinical condition of the patient are stable over last 4 years. Follow-up CT scan examination after 4 years revealed no significant change in size and texture of the lesion (Fig. 5).

Discussion

Bilateral symmetrical perirenal involvement is typically seen in pathologic conditions like perirenal lymphoma, perinephric collections, hematoma, urinoma, abscesses, bilateral perirenal lymphangiomatosis, bilateral nephroblastomatosis perirenal extramedullary hematopoiesis, bilateral retroperitoneal tumors, and fibrosis [1]. These conditions can be renal, subcapsular, or perirenal in origin and often indistinguishable with respect to the same. Imaging with CT or magnetic