

ARP Case Report N° 12: Communicating Varix between the Left Renal Vein and Left Ascending Lumbar Vein

Caso Clínico ARP N°12: Variz em Comunicação entre Veia Renal Esquerda e a Veia Lombar Ascendente Esquerda

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Correct Answers Clinical Case N° 12

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Abstract

69-year-old female found on a routine radiological follow-up (yearly abdominal CT scan) after a left adrenalectomy 4 years ago (pathologically proven cortical adenoma). Chronic left flank pain, already present before the adrenalectomy was the major complaint.

A small left para-aortic “mass” was the main finding on the CT scan. As differential diagnosis we have considered para-aortic lymphadenopathy, adrenal mass or a saccular renal artery aneurysm given a somewhat prominent contrast enhancement.

This patient had previous abdominal CT scans, one before the adrenalectomy and the others after that surgery, and in all but one of them it was retrospectively shown that this “mass” was already present.

Coronal and oblique axial views and MIP reconstruction better depicted that the “mass” was indeed a varix or varicosity that put into communication the left renal vein and the left ascending lumbar vein.

Literature review have shown that this varix could be an explanation for the chronic left pain that this patient had because of the compression and irritation of the left lumbar plexus given the close relation of these two anatomical structures. The “disappearance” or transitory collapse of this varix in one of the patient’s previous follow-up CT scans that we retrospectively analyzed might be due to variations in intra-abdominal pressure related to Valsalva maneuver during the CT scan image acquisition.

After alerting the requesting physicians to this varix and possible explanation for the chronic pain complaints, the patient was referred to Pain Medicine specialty in our institution.

Resumo

Mulher de 69 anos de idade em seguimento radiológico de rotina - tomografia computadorizada (TC) abdominal anual - após uma adrenalectomia esquerda há 4 anos (adenoma cortical comprovado patologicamente). Queixa principal de dor crónica no flanco esquerdo, já presente antes da adrenalectomia.

Uma pequena massa para-aórtica esquerda foi a principal descoberta na TC. Como diagnóstico diferencial, consideramos a linfadenopatia para-aórtica, a massa adrenal ou um aneurisma sacular da artéria renal dada uma captação de contraste um tanto ou quanto proeminente.

Estavam disponíveis TCs abdominais prévias, uma antes da adrenalectomia e as demais após a cirurgia, e em todas, exceto uma delas, foi demonstrado retrospectivamente que essa “massa” já estava presente.

Nos cortes coronal e axial oblíquo bem como na reconstrução MIP foi melhor demonstrado que a “massa” era de facto uma variz ou varicosidade que punha em comunicação a veia renal esquerda e a veia lombar ascendente esquerda.

A revisão da literatura mostrou que esta variz poderia ser uma explicação para a dor crónica do flanco esquerdo que esta paciente apresentava devido à compressão e irritação do plexo lombar esquerdo, dada a íntima relação destas duas estruturas anatómicas.

O “desaparecimento” ou o colapso transitório dessa variz numa das TCs da paciente que analisamos retrospectivamente pode ser devido a variações na pressão intra-abdominal relacionadas com a manobra de Valsalva durante a aquisição das imagens na TC.

Após terem sido alertados os médicos assistentes sobre essa variz e possível explicação para as queixas de dor crónica, a paciente foi encaminhada para a especialidade de Medicina da Dor no nosso centro hospitalar.

Clinical Case

A 69-year-old female was found on a routine radiological follow-up (yearly abdominal CT scan) after a left adrenalectomy 4 years ago (pathologically proven cortical adenoma, after removal, documented on our institutional electronic medical records). She complained of chronic left flank pain, already present before the adrenalectomy. She also had prior surgical history of intestinal volvulus 18 years ago. This patient had previous abdominal CT scans in our institutional digital imaging archive (PACS), one before the left adrenalectomy and the others after that surgery, and in all

but one of them it was retrospectively shown that a small left para-aortic “mass” was already present (Figure 1).

As differential diagnosis of this para-aortic “mass” we could consider para-aortic lymphadenopathy, adrenal mass or a saccular renal artery aneurysm given a somewhat prominent contrast enhancement.

Coronal view and MIP reconstruction (Figures 2 and 3, respectively) show that the “mass” is indeed a varix or varicosity communicating with the left renal vein. Axial and oblique axial images (Figures 4 and 5, respectively) more clearly depict the ascending lumbar veins and the communication of the varix with the left ascending lumbar vein.

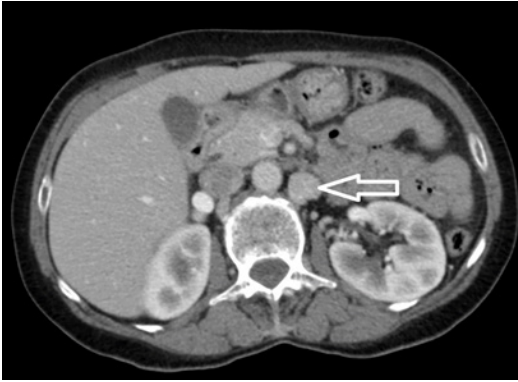


Figure 1 - Axial CT image demonstrating a small left para-aortic "mass" (arrow).



Figure 2 - Coronal view showing that the "mass" (arrow) is indeed a varix or varicosity communicating with the left renal vein.

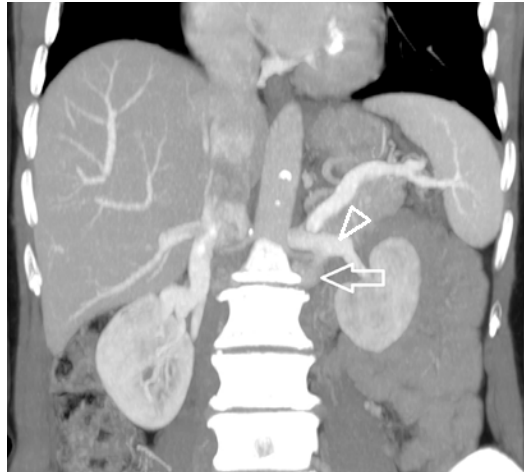


Figure 3 - MIP reconstruction putting into better detail the relationship of the varix (arrow) and the left renal vein (arrowhead).

The similarities of this case with other case reports are striking, namely with that from Jakhere et al,¹ where they state that this entity is rare with only a few cases reports in the literature, and that this could be an explanation for the chronic left pain that this patient had because of the compression and irritation of the left lumbar plexus given the close relation of these two anatomical structures.

So, interestingly in one CT scan, nearly in the middle of this 4 year period of follow-up, the varix was not evident. It could be that the "disappearance" or transitory collapse of this varix in one of the patient's previous follow-up CT scans that we retrospectively analyzed might be due to variations in intra-abdominal pressure related to Valsalva

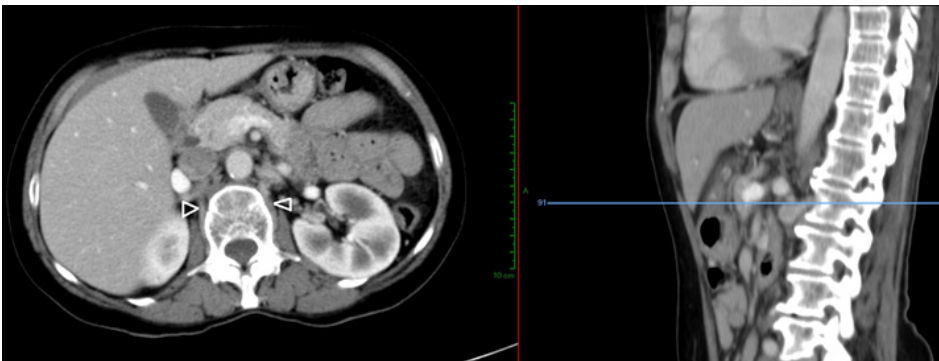


Figure 4 - Axial CT image, and the corresponding level on sagittal at the right side of the image, showing the right and left ascending lumbar veins (arrowheads); the left vein is somewhat more prominent than the right one.

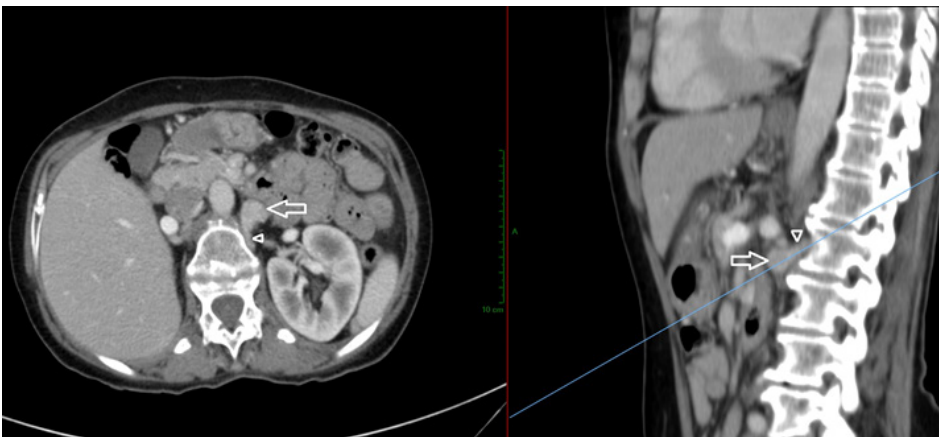


Figure 5 - Axial oblique CT image, and the corresponding level on sagittal at the right side of the image, putting in to better detail the communication of the varix (arrow) with the left ascending lumbar vein (arrowhead).

maneuver during the usual deep inspiration and apnea requested for CT scans.

After alerting the requesting physicians to this varix and possible explanation for the pain complaints, the patient was referred to Pain Medicine specialty in our institution.

References

1 - Jakhere SG, Yadav DA, Tuplondhe GR. Case report: Varicosity of the communicating vein between the left renal vein and the left ascending lumbar vein mimicking a renal artery aneurysm: report of an unusual site of varicose vein and a novel hypothesis to explain its association with abdominal pain. *Indian J Radiol Imaging*. 2011;21:24-7.