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INFLAMMATORY RENAL PSEUDOTUMOR IN WEGENER'S GRANULOMATOSIS: INITIAL MANIFESTATION OF A CASE

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ABSTRACT

We report a case of a 37-year-old woman who was treated in the emergency department with low back pain and intermittent cough for 7 days. Computed tomography and magnetic resonance imaging of the abdomen and pelvis revealed an expansive, heterogeneous formation with ill-defined limits, measuring 6.3 x 5.1 cm, in the upper third of the left kidney and a second expansive formation located in the lower pole of the left kidney, measuring 5.1 x 5.9 x 6.4 cm. She then underwent uneventful left videolaparoscopic radical nephrectomy. After the procedure, the patient progressed with prostration, decreased general condition and cough with brownish secretion, in addition to complaining of decreased visual and hearing acuity. She underwent laboratory and imaging tests, revealing bilateral cavitated lung masses that proved to be a case of Wegener's granulomatosis. Treatment with pulse therapy was initiated, but the patient died days later. This is the 11th case described in the scientific literature and serves as a warning to guide the management of this rare clinical condition, especially with regard to the presentation of inflammatory renal pseudotumor.

Key Words: Wegener`s granulomatosis, kidney tumor, nephrectomy, videolaparoscopy, granulomatous vasculitis.

Introduction

Wegener's granulomatosis (WG) is a granulomatous necrotizing vasculitis with preferential involvement of the upper and lower airways, and lungs. The kidneys and/or other organs may be affected (1). Renal involvement defines the disease as generalized in form and has an important influence on prognosis and

mortality. The usual renal manifestation is microscopic hematuria. Histopathological findings can vary from focal segmental glomerulonephritis to rapidly progressive glomerulonephritis. Presentation as inflammatory renal pseudotumor is extremely rare and rarely described in the literature (2).

Case report

A 37-year-old woman sought emergency care. She had history of low back pain and intermittent cough for 1 week. Tomography of the abdomen and pelvis with contrast showed an expansive, heterogeneous formation with ill-defined limits, measuring 6.3 x 5.1 cm, located in the upper third of the left kidney. Magnetic resonance imaging of the abdomen and pelvis showed an expansive formation located in the lower pole of the left kidney, measuring 5.1 x 5.9 x 6.4 cm, mainly hypointense in all phases, with foci of diffusion restriction and irregular enhancement contrast enhancement, without signs of invasion of the pelvis or renal vein.

She then underwent uneventful left videolaparoscopic radical nephrectomy. In the late postoperative period, approximately 3 weeks after the surgical procedure, she developed prostration, poor general condition, and a cough with brownish secretion, in addition to complaints of decreased visual and hearing acuity.

She performed laboratory and imaging tests, revealing bilateral cavitated lung masses. Antibiotic therapy was initiated. Laboratory blood tests were performed to measure inflammatory markers (C-reactive protein: 40,8mg/dL and C-anca: 198.70U/mL). Histopathological study of the surgical specimen revealed a chronic granulomatous inflammatory process with extensive fibrosis and necrosis. The lesion was 9.0 x 7.0 cm in size, with extension to the perirenal adipose tissue and renal sinus. Based on these findings, a diagnosis of WG was made. Treatment with pulse therapy was initiated, but the patient died days later.

Discussion

Wegener's granulomatosis is a rare clinical entity that most commonly affects people in the fourth or fifth decade of life, with similar incidence among males and females. The condition invariably progresses to death in the absence of therapy. Renal involvement as a pseudotumor lesion is sporadically described in the literature, but the corresponding radiological appearance is poorly described (3). The appearance on radiological imaging is similar to that of granulomas in other organs. The radiological appearance of pulmonary or orbital granulomas is characterized by hypointense T1/T2 lesions and moderate or small enhancement on images obtained with contrast. Infiltrative lesions with central and hypovascular necrosis greater than that in the renal parenchyma are also described (4). In summary, the lesions are non-specific, but appear to follow the trends described above. It is extremely important to establish the differential diagnosis with other infiltrative-type renal masses, such as renal cell carcinoma, lymphoma, tuberculosis of the genitourinary tract, and other non-neoplastic conditions. This diagnosis may require kidney biopsy.

When compared with other reports in the literature, we found several reports of treatment of renal mass with partial or radical nephrectomy or even complete remission with drug treatment (3-5).

This is the 11th case described in the scientific literature and serves as a warning to guide clinical

management of this rare condition (3).

Conclusion

Granulomatous renal lesion, presented in this case as inflammatory renal pseudotumor, is extremely rare in the population and rarely described in the literature. Imaging exams and renal biopsy play a key role in the investigation and clinical follow-up of patients affected by this disease. Treatment with partial or radical nephrectomy or drug treatment alone are described. These approaches should be considered in primary diagnoses of renal masses or in cases of recurrence. However, a differential diagnosis with malignant neoplasm of the kidney is required.

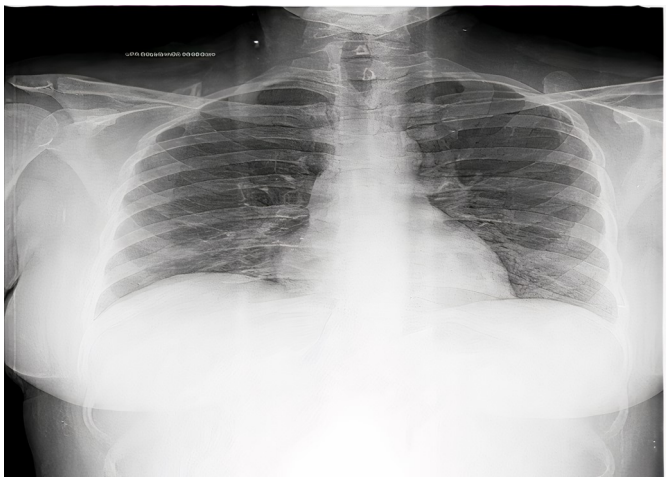


Figure 1: Chest x-ray in posteroanterior view with usual appearance, performed preoperatively.

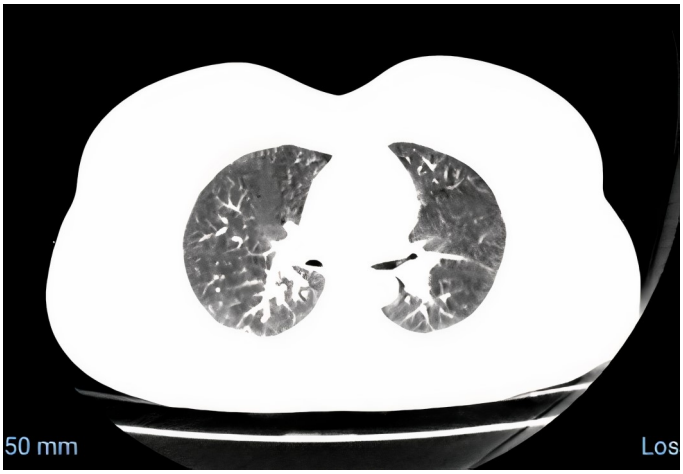
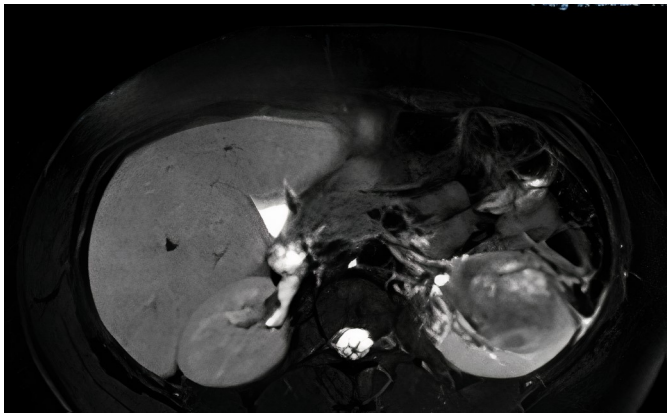


Figure 2: Non-contrast tomography of the chest, which did not show changes suggestive of WG.



Figures 3 and 4: Magnetic resonance imaging of the patient, showing an infiltrative renal mass in the left kidney.

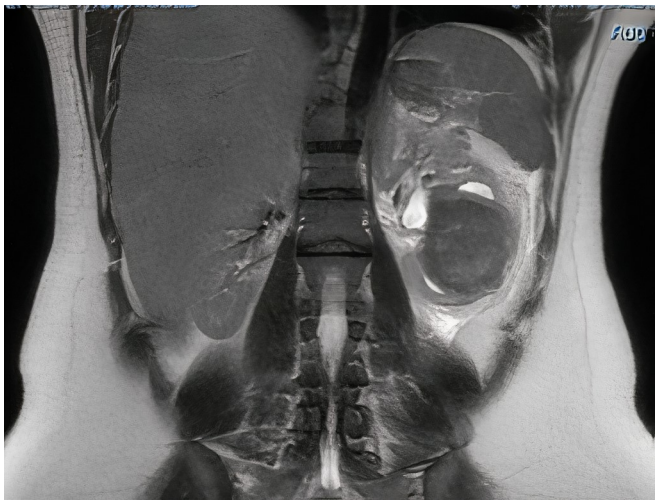
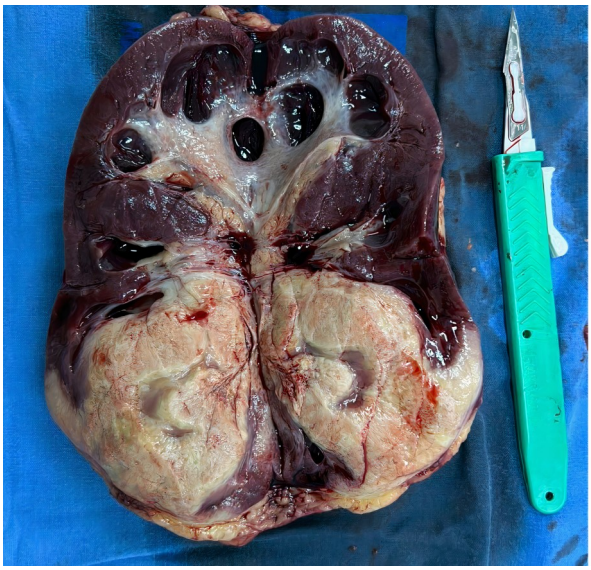


Figure 5: Surgical specimen - left radical nephrectomy product.



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CONFLICT OF INTERESTS

None declared

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References

1. Bajema IM, Hagen EC,van der Woude FJ, Bruijn JA. Wegener's granulomatosis : a meta analysis of 349 literary case reports. J Lab Clin Med 1997; 129: 17-22
2. Schydlowsky P, Rosenkilde P, Skriver E, Helin P, Braendstrup O. Wegener' s granulomatosis presenting with a tumor-like lesion in the kidney. Scand J Rheumatol 1992; 21: 204-5
3. F. Vandergheynst, N. Dumarey & E. Cogan (2010) RELAPSE OF A RENAL INFLAMMATORY PSEUDOTUMOUR ASSOCIATED WITH WEGENER'S GRANULOMATOSIS, Acta Clinica Belgica, 65:6, 429-431, DOI: 10.1179/acb.2010.65.6.011.
4. Verswijvel, G., Eerens, I., Messiaen, T., & Oyen, R. (2000). Granulomatous renal pseudotumor in Wegener's granulomatosis: imaging findings in one case. European Radiology, 10 (8), 1265–1267. doi:10.1007/s003300000344
5. Schapira HE, Kapner J, Szporn A. Wegener's granulomatosis presenting as a renal mass. Urology 1986; 28: 307-9