MEGA JOURNAL OF CASE REPORTS

OPEN ACCESS

Case Report

Compiled Date: April 06, 2024

Wunderlich – Syndrome – Spontaneous Kidney – Rupture due to Lymphoma

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Introduction

Spontaneous kidney-haemorhhage is an emergency, potentially life-threatening condition. Treatment includes two ways – treatment of the haemmorrhage and treatment of the etiologic condition of the haemorrhage. These two ways could be done at a single action or followed one by another [1,2]. Diagnostics include dynamic follow-up of hemoglobin, ultrasound examination of kidneys and abdomen, CT [3,4], that will inform for level of blood loss, details of perirenal haematoma and in part of cases – the etiologic reason. Treatment could be conservative and surgical. The striving should be conservatively management in haemodynamically-stable patients, because surgical exploration is equal to nephrectomy in main percentage of patients [5].

Case Presentation

A 60 year-old man without comorbidity starts feeling spontaneous acute pain in left flanc region, sweating, which started without physical activity. After that he was hospitalised in surgical department. MRI was made with result – kidney-rupture due to angyomyolipoma, perirenal haematoma. Conservative treatment has been started and dynamic surveillance of hemoglobin which showed no active bleeding. Treatment continued in urologic department conservatively and the patient condition remained stable.

1 month later the patient feels not-acute flanc pain but worsening day after day.

It was done:

- Ultrasound – hydronephrosis grade 2 of left kidney.
- CT - hydronephrosis grade 2 of left kidney, hydroureter in upper ½, coagulum in the pyelon.
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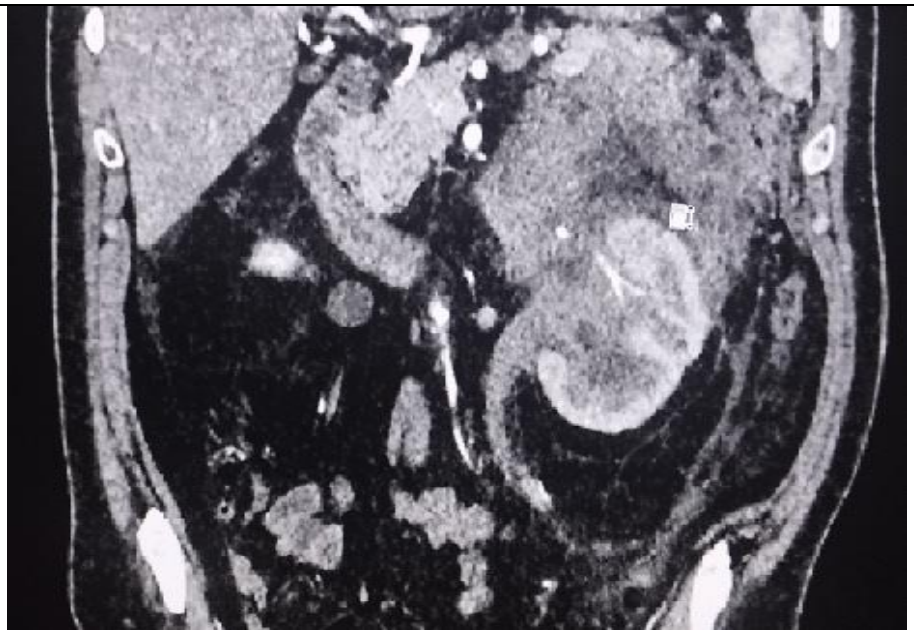
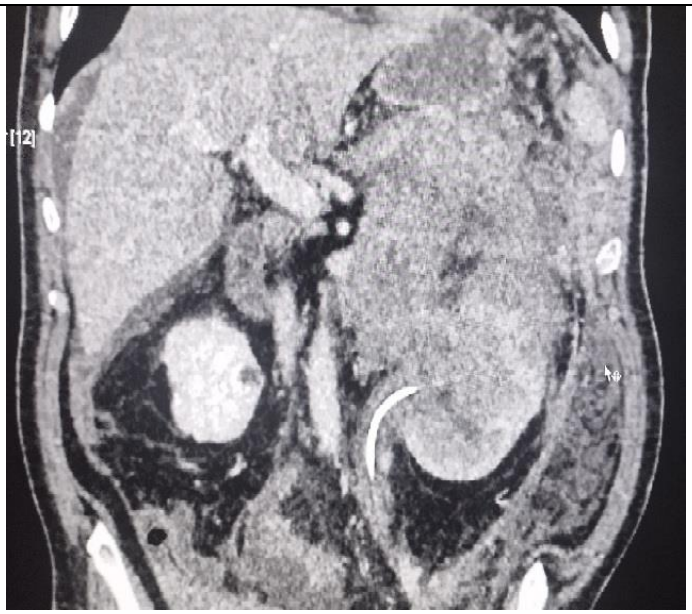
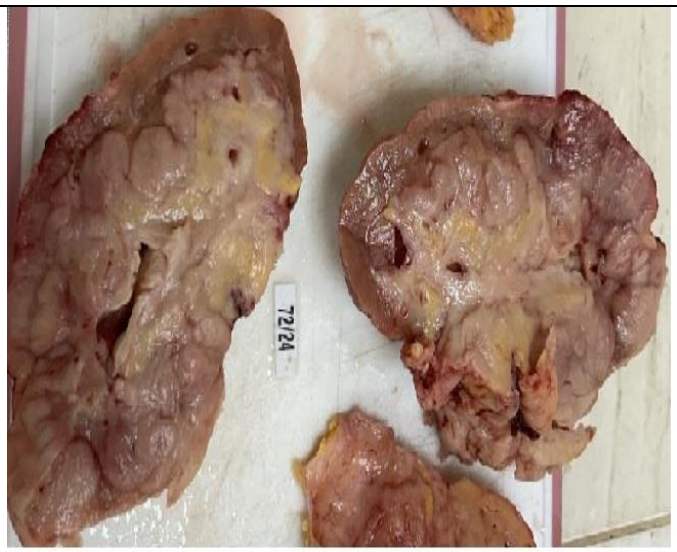


An ureteral stent was inserted transurethrally with the aim – lowering the intrarenal pressure and kidney-drainage. Clear urine with no blood.

- Control ultrasound – restored kidney drainage.
- One more month later the patient feels progressive left flanc pain.
- Ultrasound – massive perirenal hematoma.
- Stable hemoglobin levels.
- Control CT – "liver – bigger dimensions with hypodense-lesions with characteristic of abscesses, differential dyagnosis – metastatic lesions. Non-dilated biliar route. Pancreas – enlarged in body and tail with downstaged density as in pancreatitis. Spleen – with no changes of normal. Kidneys – right – normal dimensions and density. Left – enlarged, not-clearly contrasted with no-clears margins but around it and at the place of upper pole – low-density structures – probably organized perirenal haematoma; JJ-stent in the pyelon."



After discussion it was decided to surgical treatment – nephrectomy. After lumbotomy it was found a kidney, insoculated with the perirenal tissues, easy-tearing tissues. Histological result: aggressive B-cell lymphoma, invaded left kidney, left ureter, mass-capsule, left adrenal gland, with morphological signs of DLBCL. It is needed immunophenotypic exam in special laboratory.



Discussion

Lymphoma is a neoplasm of the lymph system which is a result of a mistake of lymphocyte production which is followed by big amount of not-normal lymphocytes which are produced fast and live longer. Lymphoma includes two groups: Hodgkin lymphoma and non-Hodgkin lymphomas. Kidney-lymphoma is usually secondary to lymphomatic infiltration of kidneys in systemic-disseminated lymphoma in stage IV. Primary kidney lymphoma is found in 0,7% of extranodal lymphomatosis **[6,7]**. Kidneys are affected in 30-60% of cases in non-Hodgkin lymphoma. Kidneys are the most-often affected parenchymal organs in systemic lymphoma and mostly in B-cell disease **[8]**. Renal capsule is rich if lymph-vessels and t is supposed the process of affecting the organ starts from the

capsule, subcapsule tissue, renal sinus and after that the parenchyma. The renal parenchyma is compress and dislocated from solid or, as in most cases, plural nodular massed in the growing process of the lymphomatous tumor The most often etiologic reason for Wunderlich-syndrome is angyomyolipoma, after that – kidney cancer and renal-vessels defect – anurusma, vasculitis **[9-11]**. After literature search, we haven't found kidney-lymhoma as a reason for spontaneous kidney rupture. In kidney-lymphoma, there is no existing typical CT-characteristics **[12,13]**.

Conclusions

- Kidney-lymphoma is possible etiologic reason for Wunderlich-syndrome.
- Due to high-percentage of kidneys being affected by lymphoma, such patients should have specialized attention to their kidney status – by ultrasound and laboratory - functional.
- Patients with lymphoma and lateral or flanc pain should have kidney damage in the differential diagnosis.
- Comorbidity is important point when composing diferential diagnosis.
- Atypical findings in ultrasound or CT of kidneys should include lymphoma in differential diagnosis.

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Citation of this Article

M Tsvetkov, Ts Tsvankov, O Bogdanova3, H Hristov, M Maneva, R Mladenov and R Spasov. Wunderlich – Syndrome – Spontaneous Kidney – Rupture due to Lymphoma. Mega J Case Rep. 2024;7(4):2001-2006.

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