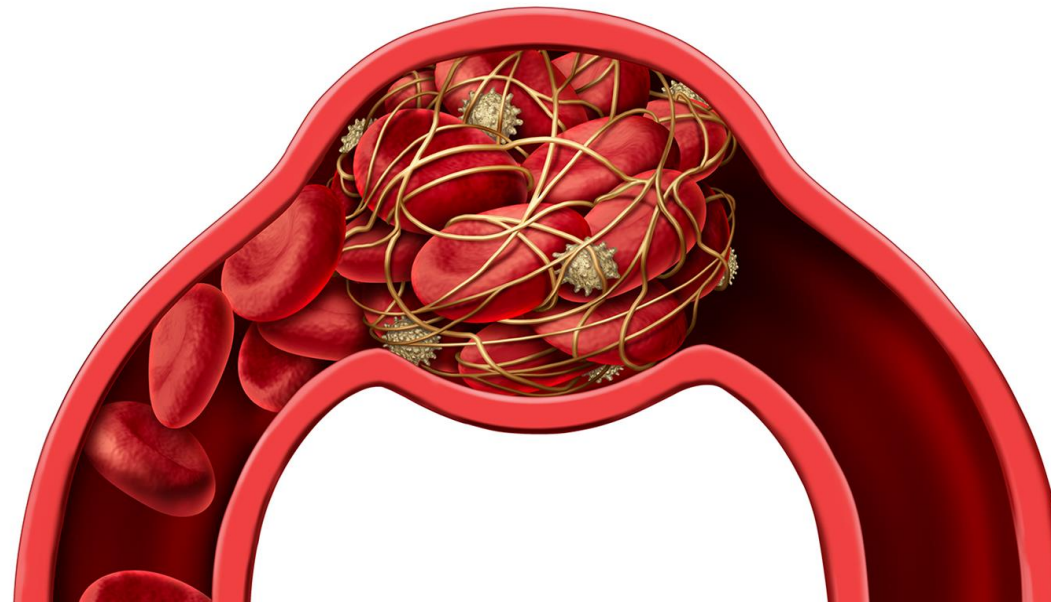
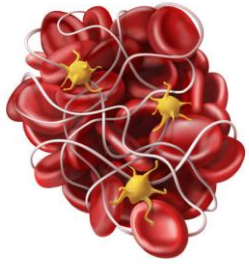


Case report: Renal infarction as a consequence of thrombosis and dissection of the renal artery

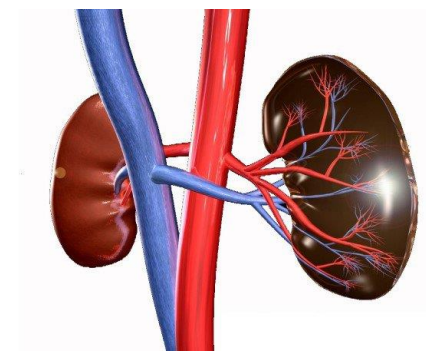
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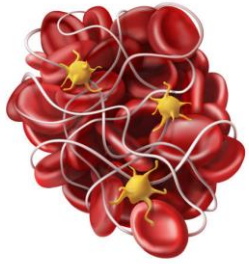
Introduction



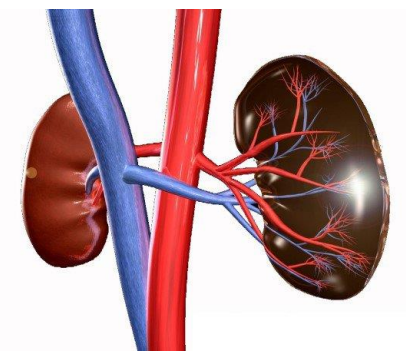
- Renal artery thrombosis is a clinical entity that has a rare occurrence and non-specific symptomatology.
- Most cases are due to thromboemboli originating in the heart or aorta.
- The most common causes of in-situ thrombosis are blunt abdominal trauma and atherosclerotic lesion.
- The occurrence is associated with polycythemia vera, pregnancy, hypercoagulability, kidney transplantation, renal angiography, oral contraceptives, nephrotic syndrome, systemic lupus erythematosus, renovascular hypertension.
- Spontaneous thrombosis of the renal artery without any known cause is extremely rare.

Objectives

Our aim was to share the diagnostic and therapeutic challenge in renal artery thrombosis, identifying the etiology, reviewing available therapeutic options for this condition, and highlighting the importance of interdisciplinary team collaboration to improve patient care.



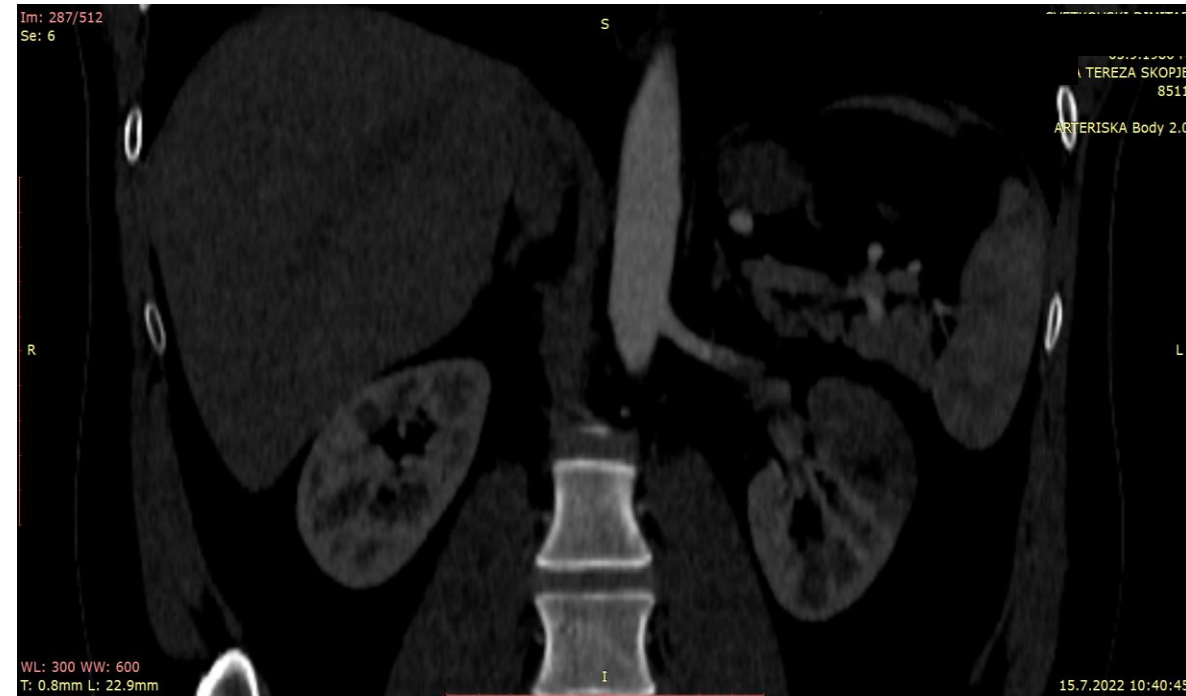
Case report

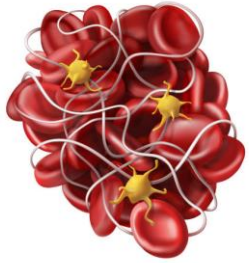


- The patient is male, 36 years old, without previous comorbidities and history of similar conditions. In terms of risk factors, the patient is a smoker, suffered from COVID-19 6 months ago, fully vaccinated with 3 doses.
- He was admitted to the outpatient clinic due to severe pain in the left flank, afebrile, without hematuria.
- The clinical presentation of a patient with renal thrombosis leading to renal ischemia most commonly includes renal colic and sometimes isolated abdominal pain and hematuria.
- Renal artery thrombosis leading to partial obstruction and ischemia without infarction may cause no symptoms.

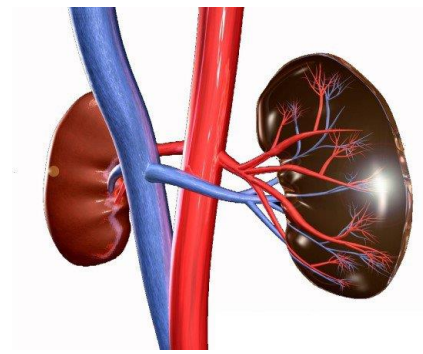
Material and methods

- The results of the **biochemical blood tests** are within reference values, with the exception of LDH-766 U/L and ALT-64 U/L.
- On **echotomography** at the level of the left kidney, middle lobe, a zone of increased echogenicity is observed.
- On the **doppler** of the left renal artery, two zones with weaker vascularization are observed, at the lower and middle poles.
- **Abdominal CT** shows dissection of a branch from the renal artery in the left kidney, with infarction of the upper pole, middle third and lower pole. The dissected part is thrombosed.
- **MR angiography** was performed with results in addition to dissection and thrombosis of the left renal artery with ischemia present.
- **Haemostasis** normal, **tests for thrombophilia** show heterozygous for F13, ITGA2, MTHFR1298, MTHFR677, homozygous for FGB, PAI-1.





Results



After consultation with a multidisciplinary team, consisting of a nephrologist, cardiologist and transfusionist, it was decided that the patient has no indication for invasive treatment, there is preserved renal function, normal blood pressure and regular flow through the renal artery. He was placed on oral anticoagulant therapy.

Conclusion

There are two therapeutic approaches for this condition:

- conservative treatment, which includes antihypertensive and anticoagulant therapy,
- invasive treatment - renal arteriography and endovascular stenting.

In this case, the non-invasive approach proved to be the best option for successful treatment.