

Case Report

Intravenous Thrombolysis of Renal Infarction: Case Report

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Abstract: Kidney infarction is a rare diagnostic condition because it is often underestimated. It occurs most often in patients with cardiovascular terrain. Most often, the clinical symptomatology of renal infarction initially simulates a picture of febrile renal colic or not, the radiological examinations of which requested are based on the first-line ultrasound. The abdominopelvic scanner without injection being used more and more in front of a painful abdominal symptomatology. In some cases, it is desirable to complete the scan by injecting contrast product, especially in the event of an unconfirmed lithiasis obstacle. Early management of renal infarction with thrombolysis or curative-dose anticoagulation (heparin therapy) may improve complete and permanent restoration of renal function. Indeed, the early diagnosis of a renal infarction is made in less than 30% of patients; it is a critical problem that requires rapid management to save the vital prognosis and the function of the kidney.

Keywords: Renal infarction, renal colic, abdomino-pelvic CT angiography, intravenous thrombolysis.

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INTRODUCTION

Renal infarction (IRN) is a rare disease, difficult to diagnose and often unrecognized, it may be due to thrombosis of one or both renal arteries, its incidence may be underestimated. On the other hand, renal colic can hide a renal infarction, the diagnosis of which is based on renal vascular exploration [1]. The therapeutic management must be undertaken urgently in order to preserve renal function. The casting of patients for medical or surgical treatment depends on the patient's condition, in particular his or her history (for the choice of major surgery), the extent of renovascular occlusion and the renal volume at risk. Infarction and necrosis [2]. Indeed, this is a therapeutic emergency whose objective is to save the kidney, by revascularization of the thrombosed artery, can intravenous thrombolysis find its place to save the kidney? Reporting to us a case of a patient with an intravenous thrombolysis renal infarction.

Case

Mr. GS, 44 years old, with no known pathological history, admitted to the emergency department, following pain in the right iliac fossa with a flexible abdomen on palpation, an abdominal pelvic

ultrasound was performed, returning without particularity, a check-up biological normal apart from a hyperleukocytosis at 15000 elt / mm³, a glycemia at 2.6g / l on an empty stomach and a creatinemia at 13g / dl, an electrical cardiac rash (ECG) and a cardiac ultrasound are unremarkable. The evolution is marked by the change in the type of pain, which becomes a pain type nephretic colic, reason for which an abdomino-pelvic scanner was requested. Was necessary according to the radiologist, performed and returning in favor of right renal infarction with a thrombus of the right renal artery and a suffering kidney, in addition to a floating thrombus in the aorta (Fig. 1).

In the absence of vascular surgery, treatment based on intravenous thrombolysis has been proposed with injection of 40 mg of Metalyse, this after elimination of any contraindication and after 04 hours of hospitalization. On day 2 of hospitalization, the patient was put on heparin therapy at a dose of 500U / kg / 24h. An immunological and glycated hemoglobin assessment was initiated to search for an underlying pathology.

The evolution was marked by the discovery of diabetes, a completely correct immunological

assessment and the disappearance of thrombus on renal scintigraphy with a right kidney of normal size and no signs of suffering, patient released on day 9 on anticoagulant at effective dose, antiplatelet agent, oral antidiabetics and a statin.



Fig-1: CT angiography of right renal infarction

DISCUSSION

Very rare are the cases of emergency renal infarction diagnosis, although the first description of renal infarction dates back to 1865, its incidence is unknown, Hoxie and Coggins isolated 205 cases in a group of 14,144 autopsies (1, 4%) [3]. The polymorphism of the symptoms, in particular, the type of pain (as in our case) can explain the difficulty of diagnosis. Indeed, several studies have recommended performing a CT angiogram in front of renal colic in a subject with a cardiac pathology (can be found in 94% of cases) or suffering from a systemic disease, especially when there is an increase in LDH-type enzymes, unlike our case. In certain situations, the thrombus of the renal artery can initiate, or bring us back to the search for a responsible pathology as in our case where inaugural diabetes was discovered during our investigations, on the other hand, no mechanism or no cause has not been distinguished during our immunological, biological and radiological investigations. It may be an idiopathic renal infarction. The latter represents 3.8% of renal infarctions in the literature [4]. In addition to emergency revascularization of the renal artery in order to preserve the kidney through systemic thrombolysis (our case) or insitu, anti-coagulation at an effective dose is unanimous in the various studies and in consensus.

Treatment should be undertaken as a medical or surgical emergency, it depends on the patient's condition and the extent of the occlusion, however inpatients with unilateral involvement like our patient, the treatment of choice seems to be thrombolysis

according to several studies [5] by the systemic route and at the same dose of coronary syndrome thrombolysis, a procedure which was performed with success in our patient. On the other hand, and in the literature, it is recommended in patients with unilateral involvement, to put anticoagulation at a curative dose either by heparin [2] or by intravenous thrombolysis [5-7].

In addition, percutaneous catheterization thromboembolism is also a very effective alternative in patients with unilateral thrombosis [8]. On the other hand, no study has demonstrated the superiority of conventional surgery over medical treatment, in particular intravenous thrombolysis, it should be noted that the success rate of medical or surgical treatment varies from 75 to 82% [2].

Indeed, in the majority of cases, medical treatment should be considered as a priority [9], this can be explained by the fact of the fragility of this type of patient who often present underlying pathologies, in particular cardiac [10]. Since several studies have indicated thrombolysis in the first four hours, especially the first 90 minutes when it will be very effective [11].

CONCLUSION

Renal infarction is an unrecognized diagnosis due to its rarity, and its clinical polymorphism, the heart is at the origin of the majority of renal infarctions, Doppler ultrasound and CT angiography are the radiologic exams of choice, anticoagulation and intra-arterial fibrinolysis remains a classic and usual treatment. On the other hand, systemic thrombolysis remains a very important alternative proven by prospective studies, thus showing the place of intravenous thrombolysis in the therapeutic arsenal of renal infarctions.

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