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ARTERIOVENOUS FISTULA EMBOLIZATION IN ROBOTIC PARTIAL NEPHRECTOMY FOR T2B TUMORS: A CASE REPORT

Luiz Fernando Bueno Azeredo D'Avila

Ana Eduarda Covatti

Catarina Cardoso de Almeida

George Washington Alves Gomes

Gabriel Afonso Miguel Meira e Silva

Eduardo Sousa Amancio da Costa

Maria Rita Dias Carvalho

Álvaro Caio Roque Souza

Bruna Teodoro Faria

Vitor Henrique Lages Ferreira

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INTRODUCTION

Robotic Partial Nephrectomy is a surgery usually indicated for patients with early-stage kidney cancer, generally with tumors up to 7 centimeters in diameter (T1a and T1b). A serious complication of surgery, especially in tumours larger than 7 cm, is incoercible hematuria due to arteriovenous fistula (AVF), which can be mitigated by arterial embolization. We report a case of Robotic Partial Nephrectomy of a 10 cm tumour in an obese patient associated with successful post-hematuria embolization.

CASE REPORT

JPM, white, male, 45 years old, Jehovah's Witness, with a BMI of 37 kg/m² presented with a 12 cm exophytic renal mass in the left middle third one year ago. He underwent robotic partial nephrectomy with continuous suturing, without complications. He was discharged on the 2nd day with no complaints. He returned on the 10th PO day with bladder tamponade. Unobstructive measures were tried without success. CT detected probable AVF in the topography of the robotic suture. He was then submitted to hemodynamics, with confirmation of a medium output AVF, which was

effectively embolized with steel springs. Anatomic pathology revealed renal adenocarcinoma restricted to the kidney (T2b).

DISCUSSION

Robotic Partial Nephrectomy treats patients with T1 and T2 renal tumors, with better oncological control, less bleeding and better recovery. In this case, the lesion was exophytic, lateral and easily accessible, even though the mass was large (12 cm) and the patient was against transfusion. Large hematuria after robotic partial nephrectomy is rare, suggesting AVF or pseudoaneurysm. As this is a life-threatening event with loss of renal function, the most rational option is arteriography with superselective embolization with controlled release springs to avoid renal ischemia by occluding only the AVF and not the distal microcirculation.

CONCLUSION

This was a tumor larger than 10 cm with an unusual indication for robotic treatment, but with a totally exophytic projection and with an appeal for less bleeding due to the patient being a Jehovah's Witness. The patient had a difficult-to-control AVF, which was accurately diagnosed and completely resolved by arteriographic embolization, without the use of blood products.

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