

Case Report

Ovarian Carcinoma: A Rare Case of Post-Kidney Transplant Malignancy – A Case Report

Dr Umar Loskurima^{1*}, Mohammed M Sulaiman¹, Mustapha Lawan¹, Abubakar Farate², Jummai Shettima², Ahidiyu Mamza³, Abdullahi O. Amali⁴, Habibu AG⁵, Mohammed M. Dungus⁶, Bukar Bunu⁷, Ibrahim A Galtimari⁸, Ijupitil K. Chiroma³, A.D. Dayar⁹, Ibrahim Ummate¹

¹Division of Nephrology, Department of Internal Medicine, University of Maiduguri

²Department of Radiology, University of Maiduguri

³Division of Endocrinology, Department of Internal Medicine, University of Maiduguri

⁴Division of Pulmonology, Department of Internal Medicine, University of Maiduguri

⁵Division of Nephrology, National Hospital, Abuja

⁶Department of Chemical Pathology, University of Maiduguri Teaching Hospital

⁷Department of Orthopaedics, University of Maiduguri Teaching Hospital

⁸Division of Cardiology, Department of Internal Medicine, University of Maiduguri

⁹Division of Gastroenterology, University of Maiduguri

Article History

Received: 05.06.2025

Accepted: 14.07.2025

Published: 16.07.2025

Journal homepage:

<https://www.easpublisher.com>

Quick Response Code



Abstract: **Background:** Post-transplant malignancies are a recognized complication of long-term immunosuppression in renal transplant recipients, with incidences significantly higher than in the general population [1,2]. Ovarian carcinosarcoma remains a particularly rare and aggressive post-transplant tumour [3]. **Case Presentation:** A 54-year-old female renal transplant recipient presented with progressive abdominal distension and weight loss 3 years post-transplant. Imaging revealed massive ascites and a large complex ovarian mass. Histopathology confirmed carcinosarcoma of the ovary. Despite initiation of chemotherapy, the patient died three weeks later. **Conclusion:** This case highlights the importance of heightened surveillance for rare malignancies in immunosuppressed transplant recipients. Ovarian carcinosarcoma is a rare but fatal diagnosis, necessitating prompt intervention and potential immunosuppression adjustment.

Keywords: Carcinosarcoma, ovary, renal transplant, post-transplant malignancy, immunosuppression.

Copyright © 2025 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Post-transplant malignancies are a growing cause of late morbidity and mortality in renal transplant recipients, with a 2–15-fold higher incidence compared to the general population [1,2]. Among these, ovarian carcinosarcoma—a malignant mixed Müllerian tumour—remains exceedingly rare, accounting for only 1–2% of all ovarian neoplasms [3,4]. These tumours contain both epithelial and sarcomatous malignant components [5] and are known for their aggressive clinical course and poor prognosis [6].

This report presents a rare case of ovarian carcinosarcoma occurring in a renal transplant recipient, underlining the need for increased vigilance and early diagnosis in such patients.

CASE PRESENTATION

A 54-year-old woman who had undergone kidney transplantation three years earlier due to hypertensive nephropathy presented with a 6-month history of progressive abdominal distension, weight loss, and bilateral pitting oedema of the lower limbs. She was compliant with her immunosuppressive regimen (tacrolimus, mycophenolate mofetil, and prednisolone).

Clinical examination revealed massive ascites. No organomegaly or abdominal masses could be appreciated due to fluid accumulation. Laboratory investigations showed markedly elevated serum CA-125 (13,069.2 U/mL; reference: 0–35). Abdominopelvic CT scan with IV contrast revealed a large (12.8 × 8.5 × 11.4 cm) complex left adnexal mass with both solid and cystic components, as well as massive ascites.

Ultrasound-guided biopsy of the mass revealed features of ovarian carcinosarcoma. Despite prompt

*Corresponding Author: Dr Umar Loskurima

Consultant Physician/Nephrology Specialist, University of Maiduguri Teaching Hospital. Maiduguri, Borno State, Nigeria

initiation of chemotherapy, the patient died three weeks after diagnosis.

DISCUSSION

The risk of malignancy in renal transplant recipients is significantly elevated due to chronic immunosuppression, which reduces immune surveillance and facilitates oncogenic viral infections [2,7]. The most common post-transplant malignancies are skin cancers and lymphoproliferative disorders, but solid organ malignancies—though less common—carry a worse prognosis [8].

Ovarian carcinosarcoma is rare, accounting for only 1–2% of all ovarian neoplasms [3,4]. Its occurrence in transplant recipients is even rarer. The tumour's biphasic nature, comprising both carcinomatous and sarcomatous elements, contributes to its aggressiveness [5]. Immunosuppressive agents such as calcineurin inhibitors and antimetabolites are known to impair cellular immunity and may contribute to tumour growth [6].

This patient's poor outcome was likely due to advanced disease at presentation, high tumour burden, and limited time for therapeutic intervention. While tumour debulking and chemotherapy are the mainstay of treatment [6], immunosuppressive dose adjustment or switching to mTOR inhibitors might be considered as part of a comprehensive cancer control strategy in transplant recipients [10].

Regular cancer screening in transplant patients, particularly those who present with vague systemic symptoms or paraneoplastic features, is essential for early detection and improved outcomes [11].

CONCLUSION

Ovarian carcinosarcoma is an extremely rare but aggressive tumour in renal transplant recipients. Clinicians should maintain a high index of suspicion for malignancy in transplant patients with unexplained systemic symptoms. Early diagnosis and multidisciplinary care, including possible adjustments in immunosuppressive therapy, are key to improving survival.

DECLARATIONS

Funding: None

Conflicts of Interest: The authors declare no conflict of interest.

Ethical Approval: Approved by the University of Maiduguri Teaching Hospital Ethics Committee.

Consent: Informed consent for publication was obtained from the patient's next of kin.

REFERENCES

1. Kasiske, B.L., Snyder, J.J., Gilbertson, D.T. and Wang, C., 2004. Cancer after kidney transplantation in the United States. *American Journal of Transplantation*, 4(6), pp.905–913.
2. Arias, E., Ramos, M., García, L., Ortega, R. and Suárez, A., 2018. Post-transplantation malignancy: Pathogenesis and management. *Oncotarget*, 9(6), pp.6746–6759.
3. Young, R.H. and Scully, R.E., 1990. Ovarian mesodermal mixed tumor: A clinicopathologic analysis of 43 cases. *The American Journal of Surgical Pathology*, 14(11), pp.988–996.
4. Olaitan, A., Ayansina, A. and Faturoti, O., 2005. Ovarian carcinosarcoma: A review of the literature. *Archives of Gynecology and Obstetrics*, 272(2), pp.97–101.
5. Zivanovic, O. *et al.*, 2010. Ovarian carcinosarcoma: A population-based analysis of outcomes. *International Journal of Gynecological Cancer*, 20(1), pp.92–97.
6. Prat, J. and Gallardo, A., 2002. Pathology and classification of ovarian tumors. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 16(4), pp.527–543.
7. Penn, I., 1996. Cancers after immunosuppressive therapy. *Transplantation Proceedings*, 28(3), pp.1341–1342.
8. Collett, D. *et al.*, 2008. Cancer incidence and survival in kidney transplant recipients. *Transplantation*, 86(9), pp.1234–1238.
9. Campistol, J.M. and Albanell, J., 2003. Immunosuppressants and cancer: Current and future treatment options. *Nephrology Dialysis Transplantation*, 18(suppl_1), pp.i37–i42.
10. Schwartz, C.L., 2010. mTOR inhibitors and malignancy in transplantation: A double-edged sword. *Current Opinion in Organ Transplantation*, 15(5), pp.593–597.
11. Kirk, A.D., 2006. Crossing the bridge: Large animal models in translational transplantation research. *Immunological Reviews*, 196, pp.176–196.

Cite This Article: Umar Loskurima, Mohammed M Sulaiman, Mustapha Lawan, Abubakar Farate, Jummai Shettima, Ahidiyu Mamza, Abdullahi O. Amali, Habibu AG, Mohammed M. Dungus, Bukar Bunu, Ibrahim A Galtimari, Ijupitil K. Chiroma, A.D. Dayar, Ibrahim Ummate (2025). Ovarian Carcinoma: A Rare Case of Post-Kidney Transplant Malignancy – A Case Report. *East African Scholars J Med Surg*, 7(7), 149-150.