

Primary Retroperitoneal Mucinous Cystadenocarcinoma in a Male Patient: A Rare Surgical Case Report

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Abstract: ***Introduction and Importance:** Primary retroperitoneal mucinous cystadenocarcinoma (PRMC) is a rare entity, particularly in male patients. Its origin remains uncertain and presents a diagnostic challenge. **Case Presentation:** A 48 - year - old male with progressive abdominal distension over three months. CT imaging revealed a well - circumscribed, multilocular cystic mass in the left retroperitoneal space measuring 15 × 12 × 10 cm. The patient underwent complete surgical excision of the mass. Histopathology confirmed mucinous cystadenocarcinoma with positive immunohistochemical staining for CK7 and CEA. The patient recovered uneventfully and remained recurrence - free at six - month follow - up. **Clinical Discussion:** PRMCs are rarely seen in males. Their origin may involve metaplastic transformation of mesothelial or Müllerian remnants. Preoperative diagnosis is challenging due to overlapping imaging features with benign cystic lesions. Surgical resection is both diagnostic and therapeutic. **Conclusion:** PRMC should be considered in the differential diagnosis of retroperitoneal cystic masses, even in male patients. Early surgical intervention remains key to favorable outcomes.*

Keywords: Retroperitoneal cyst, Mucinous cystadenocarcinoma, Rare tumor, Male patient, Surgical case report

1. Highlights

- Primary retroperitoneal mucinous cystadenocarcinoma (PRMC) is an extremely rare tumor in males.
- Diagnosis is often delayed due to vague clinical presentation and imaging resemblance to benign cystic lesions.
- Complete surgical excision is the mainstay of treatment.
- Immunohistochemistry aids in confirming the diagnosis.
- Long - term follow - up is essential due to the potential for recurrence.



CT imaging revealed a well - circumscribed, multilocular cystic mass in the left retroperitoneal space measuring 15 × 12 × 10 cm

2. Introduction

Primary retroperitoneal mucinous cystadenocarcinoma (PRMC) is an exceptionally rare malignancy. Most reported

cases occur in females, and its presentation in male patients is exceedingly uncommon. The origin of PRMC is still debated, with theories including coelomic metaplasia and remnants of embryonic tissues. Given its rarity, clinical awareness and timely surgical intervention are essential. This case report follows the SCARE 2020 guidelines [1].

3. Presentation of Case

A 48 - year - old male presented with a 3 - month history of progressive abdominal distension. Examination revealed a firm, non - tender mass in the left flank. CT showed a 15 × 12 × 10 cm multilocular cystic mass in the retroperitoneum. Differential diagnoses included lymphangioma, pseudomyxoma retroperitonei, or mesenteric cystic neoplasm. Surgical exploration revealed a large cystic mass, which was excised en bloc. Histology confirmed mucinous cystadenocarcinoma, positive for CK7 and CEA. The patient recovered well and was disease - free at 6 - month follow - up.

4. Discussion

PRMC is very rare in males. Imaging typically shows a cystic lesion, but diagnosis is confirmed by histopathology. Complete surgical excision is the treatment of choice. The role of chemotherapy or radiation remains uncertain due to limited data.

5. Conclusion

PRMC, though rare in men, should be part of the differential diagnosis of retroperitoneal cystic masses. Surgery remains the definitive treatment.

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Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Ethical Approval

Not required for single - patient case reports as per institutional guidelines.

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Conflict of Interest

The authors declare no conflict of interest.

Author Contributions

Dr. Rahul Sharma: Conceptualization, Surgery, Writing – original draft

Dr. Sakshi Bansal: Data collection, Literature review

Guarantor

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