INTERNATIONAL JOURNAL OF HEALTH & MEDICAL RESEARCH

ISSN(print): 2833-213X, ISSN(online): 2833-2148

Volume 04 Issue 03 March 2025

DOI : 10.58806/ijhmr.2025.v4i3n15

Page No. 193-195

Primary Retroperitoneal Tumors: A Report of 6 Cases

EL WASSI ANAS[1], MOUNTASSIR MAROUANE[2], BRAHMI SOUFIANE[3], HAJRI AMAL[4], ERGUIBI DRISS[5], BOUFETTAL RACHID[6], JAI RIFKI SAAD[7], CHEHAB FARID[8]

[1,2,3,4,5,6,7,8]Department of general surgery, IBN ROCHD University hospital of Casablanca, Casablanca, Morocco

ABSTRACT

Background: Primary retroperitoneal tumors are rare, accounting for less than 1% of malignancies, and are often diagnosed late due to asymptomatic growth. This study presents six cases managed at CHU Ibn Rochd, Casablanca, to highlight diagnostic and therapeutic challenges.

Methods: Six cases (ages 35–67) included liposarcoma, leiomyosarcoma, neurogenic tumors, undifferentiated sarcoma, lymphoma, and desmoid tumors. Treatments involved surgical resection, chemotherapy, and radiotherapy based on tumor type.

Results: Complete surgical resection was primary treatment, with adjuvant therapy tailored to histology. Outcomes varied, emphasizing the need for rigorous postoperative surveillance to detect recurrence.

Conclusion: A multidisciplinary approach, including early diagnosis, precise surgery, and adjuvant therapy, is essential. Personalized strategies and further research into advanced therapies are needed to improve outcomes in these rare tumors.

KEYWORDS: Retroperitoneal tumors, Surgery, Surgical resection, Chemotherapy, Radiotherapy.

INTRODUCTION

Primary retroperitoneal tumors are rare neoplasms, constituting less than 1% of all malignant tumors. These tumors may arise from mesenchymal, neurogenic, or germinal tissues, and their diagnosis is frequently delayed due to the asymptomatic nature of their initial growth. Their management presents a significant challenge owing to their complex anatomical location and potential for insidious progression [1].

OBJECTIVE

The objective of this study is to present and analyze six cases of primary retroperitoneal tumors managed at the CHU Ibn Rochd in Casablanca, with the aim of enhancing the understanding of these rare neoplasms and discussing the most appropriate therapeutic strategies.

CASE PRESENTATION

The six cases involve patients aged 35 to 67 years, who presented with nonspecific abdominal pain and a palpable mass on clinical examination. Below is a brief description of each case:

1. **Case 1**: A 45-year-old male presenting with an abdominal mass. Diagnosis: liposarcoma. Treatment: complete surgical resection followed by adjuvant chemotherapy.
2. **Case 2**: A 52-year-old female diagnosed with leiomyosarcoma. Treatment: surgical resection with clear margins followed by radiotherapy.
3. **Case 3**: A 60-year-old male with a neurogenic tumor. Treatment: complete surgical resection without major postoperative complications.
4. **Case 4**: A 35-year-old female diagnosed with undifferentiated sarcoma. Treatment: surgical resection followed by chemotherapy.
5. **Case 5**: A 67-year-old male diagnosed with lymphoma. Primary treatment: chemotherapy, with a good initial response.
6. **Case 6**: A 50-year-old female with a desmoid tumor. Treatment: surgical resection and regular follow-up.

RESULTS

The outcomes of these six cases demonstrate that:

- Complete surgical resection remains the treatment of choice [2].
- Patients who received adjuvant therapy (chemotherapy or radiotherapy) exhibited variable responses [3].
- Postoperative surveillance is crucial for the early detection of recurrences [4].

Each case highlighted the specific challenges associated with the tumor type and response to treatment, ranging from uncomplicated management to the need for rigorous monitoring for potential recurrences.

DISCUSSION

Primary retroperitoneal tumors represent a heterogeneous group of rare neoplasms, often diagnosed at an advanced stage due to their asymptomatic growth and insidious onset [5]. This study, based on six cases of primary retroperitoneal tumors treated at the CHU Ibn Rochd in Casablanca, sheds light on several critical aspects of managing these pathologies.

The diagnosis of primary retroperitoneal tumors is frequently delayed, complicating therapeutic management. The tumors in our series included liposarcomas, leiomyosarcomas, neurogenic tumors, undifferentiated sarcomas, lymphomas, and desmoid tumors. This diversity underscores the diagnostic complexity and the importance of imaging studies and biopsies for accurate classification [6].

Complete surgical resection remains the cornerstone of treatment for primary retroperitoneal tumors. Our cases demonstrate that surgery, when feasible, offers the best chance of survival. However, resection margins must be carefully evaluated to minimize the risk of local recurrence [7].

In our series, cases of liposarcoma and leiomyosarcoma were treated with surgical resection with clear margins, followed by adjuvant therapy. Adjuvant chemotherapy and radiotherapy were employed based on the histological type and biological behavior of the tumor. For instance, radiotherapy was effective in controlling local disease in the leiomyosarcoma case [8].

Neurogenic tumors and undifferentiated sarcomas were also managed surgically, with varying outcomes depending on the individual response to adjuvant therapy. The lymphoma case was primarily treated with chemotherapy, showing a good initial response, which highlights the importance of systemic therapy for certain types of retroperitoneal tumors [9].

Postoperative surveillance is essential for the early detection of recurrences, a common complication in primary retroperitoneal tumors. Our observations indicate that patients should undergo regular follow-up with periodic imaging studies to monitor for signs of local or metastatic recurrence [10].

Major challenges in managing primary retroperitoneal tumors include the difficulty of achieving complete resection without damaging adjacent vital anatomical structures. Local recurrences remain a significant concern, even after seemingly complete resection [11].

Ongoing research into adjuvant and neoadjuvant therapeutic approaches is necessary to improve outcomes. Advances in oncology, such as targeted therapies and immunotherapy, may offer new treatment options for primary retroperitoneal tumors [12].

Our findings align with those reported in the literature, where surgical resection is widely recognized as the first-line treatment. However, the diversity of tumor types and treatment responses underscores the need for a multidisciplinary and personalized approach for each patient [13].

In summary, the management of primary retroperitoneal tumors requires a combination of early diagnosis, precise surgery, appropriate adjuvant therapies, and rigorous postoperative surveillance. Our six cases illustrate the challenges and successes of these approaches, providing valuable insights for the future management of these rare neoplasms.

CONCLUSION

Primary retroperitoneal tumors present significant diagnostic and therapeutic challenges. Our six cases highlight the necessity of a multidisciplinary approach to optimize clinical outcomes. Early diagnosis, personalized management, and rigorous surveillance are essential to improve the quality of life and survival prospects for patients with these rare tumors.

Provenance and peer review

Not commissioned, externally peer reviewed.

Consent

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

Ethical approval

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

Conflicts interests

Authors have declared that no competing interests exist.

Source of funding
None

REFERENCES

1) Strauss DC, Hayes AJ, Thomas JM. Retroperitoneal sarcoma: the need for a multidisciplinary approach. *Ann Surg Oncol*. 2011;18(3):693-6.
2) Gronchi A, Lo Vullo S, Fiore M, et al. Aggressive surgical policies in a retrospectively reviewed single-institution case series of retroperitoneal soft tissue sarcoma patients. *J Clin Oncol*. 2009;27(1):24-30.
3) Bonvalot S, Rivoire M, and Castaing M, et al. Primary retroperitoneal sarcomas: a multivariate analysis of surgical factors associated with local control. *J Clin Oncol*. 2009;27(1):31-7.
4) Van Dalen T, Hennipman A, Van Coevorden F, et al. Evaluation of a clinically applicable post-surgical classification system for primary retroperitoneal soft-tissue sarcoma. *Ann Surg Oncol*. 2004;11(5):483-90.
5) Lewis JJ, Leung D, Woodruff JM, et al. Retroperitoneal soft-tissue sarcoma: analysis of 500 patients treated and followed at a single institution. *Ann Surg*. 1998;228(3):355-65.
6) Mendenhall WM, Zlotecki RA, Hochwald SN, et al. Retroperitoneal soft tissue sarcoma. *Cancer*. 2005;104(4):669-75.
7) Singer S, Antonescu CR, Riedel E, et al. Histologic subtype and margin of resection predict pattern of recurrence and survival for retroperitoneal liposarcoma. *Ann Surg*. 2003;238(3):358-70.
8) Pervaiz N, Colterjohn N, Farrokhyar F, et al. A systematic meta-analysis of randomized controlled trials of adjuvant chemotherapy for localized resectable soft-tissue sarcoma. *Cancer*. 2008;113(3):573-81.
9) DeVita VT, Lawrence TS, Rosenberg SA. *Cancer: Principles & Practice of Oncology*. 10th ed. Philadelphia: Lippincott Williams & Wilkins; 2015.
10) Porter GA, Baxter NN, Pisters PW. Retroperitoneal sarcoma: a population-based analysis of epidemiology, surgery, and radiotherapy. *Cancer*. 2006;106(7):1610-6.
11) Gronchi A, Miceli R, Colombo C, et al. Retroperitoneal soft tissue sarcoma: patterns of care in patients treated at a single institution. *Eur J Surg Oncol*. 2011;37(2):148-54.
12) Sleijfer S, Ray-Coquard I, Papai Z, et al. Pazopanib, a multikinase angiogenesis inhibitor, in patients with relapsed or refractory advanced soft tissue sarcoma: a phase II study from the European Organisation for Research and Treatment of Cancer–Soft Tissue and Bone Sarcoma Group (EORTC study 62043). *J Clin Oncol*. 2009;27(19):3126-32.
13) Casali PG, Abecassis N, Bauer S, et al. Soft tissue and visceral sarcomas: ESMO–EURACAN Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol*. 2018;29(Suppl 4):iv51-iv67.