

Case report



Ovarian adenocarcinoma metastasis mimicking psoas abscess on imaging: a case report

Youssef Kharbach, Rachidi Alaoui Siham, Abdelhak Khallouk

Corresponding author: Youssef Kharbach, Urology Department, Mohammed VI Hospital, Faculty of Medicine, Abdelmalek Essaâdi University, 90000 Tangier, Morocco. ykharbach@uae.ac.ma

Received: 29 Nov 2019 - **Accepted:** 17 Jul 2020 - **Published:** 29 Jul 2020

Keywords: Malignant psoas syndrome, psoas abscess, metastasis, ovarian adenocarcinoma

Copyright: Youssef Kharbach et al. Pan African Medical Journal (ISSN: 1937-8688). This is an Open Access article distributed under the terms of the Creative Commons Attribution International 4.0 License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cite this article: Youssef Kharbach et al. Ovarian adenocarcinoma metastasis mimicking psoas abscess on imaging: a case report. Pan African Medical Journal. 2020;36(231). 10.11604/pamj.2020.36.231.21137

Available online at: <https://www.panafrican-med-journal.com//content/article/36/231/full>

Ovarian adenocarcinoma metastasis mimicking psoas abscess on imaging: a case report

Youssef Kharbach^{1,&}, Rachidi Alaoui Siham², Abdelhak Khallouk¹

¹Urology Department, Mohammed VI Hospital, Faculty of Medicine, Abdelmalek Essaâdi University, 90000 Tangier, Morocco, ²Radiology Department, Mohammed VI Hospital, Faculty of Medicine, Abdelmalek Essaâdi University, 90000 Tangier, Morocco

&Corresponding author

Youssef Kharbach, Urology Department, Mohammed VI Hospital, Faculty of Medicine, Abdelmalek Essaâdi University, 90000 Tangier, Morocco

Abstract

Malignant psoas syndrome (MPS) is very rare with poor prognosis, and usually occurs in patients with advanced and recurrent cancer. Authors report herein the case of a 48-year-old female with history of neoadjuvant chemotherapy has been performed before hysterectomy with bilateral adnexectomy and ovariectomy for ovarian adenocarcinoma. She presented 18 months posttreatment with MPS due to a psoas abscess mimicking metastasis confirmed on computed tomography guided fine needle aspiration cytology.

Introduction

Malignant psoas syndrome (MPS) is very rare with poor prognosis, and usually occurs in patients with

advanced and recurrent cancer [1]. Its recognition is mandatory to allow the introduction of adequate therapies at early stages. Our case has the aim of presenting a rare case of malignant psoas syndrome revealing ovarian adenocarcinoma recurrence mimicking psoas abscess on imaging.

Patient and observation

A previously healthy 48-year-old multiparous female had been diagnosed as a case of ovarian adenocarcinoma 18 months ago. A neoadjuvant chemotherapy has been performed before hysterectomy with bilateral adnexectomy and ovariectomy. At 18 months posttreatment the patient presented with complaints of low backache for the last 2 months. The pain was right-sided, extending from the lower back through the hip and thigh to inside the knee. Clinical examination identified painful flexion of the right hip and did not show any feature of local recurrence. The patient underwent computed tomography (CT) examination of the abdomen and the pelvis which showed multiple pelvic lesions, one of these lesions was measuring 5.5 cm and causing a medial dislocation of the right ureter with homolateral hydronephrosis. An associated well-defined hypodense lesion in the right psoas muscle, measuring 4 x 3.6 x 3 cm was also identified (Figure 1, Figure 2). Initially, a diagnosis of ovarian adenocarcinoma recurrence with right psoas abscess was made due to the patient history. Laboratory investigations revealed a haemoglobin level of 13.8 g/dl, total leukocyte count of 7,200 cells/mm³ with 61% neutrophils, 33% lymphocytes, 6% eosinophils, 0% monocytes and 0% basophils. Serum creatinine and blood urea levels were within normal limits. Subsequently, CT guided fine needle aspiration cytology of the right psoas lesion was performed, which revealed the presence of adenocarcinoma cells consistent with the diagnosis of metastatic adenocarcinoma.

Discussion

MPS was first described by Stevens and Gonet in 1990, it's a cancer-related syndrome that associates ipsilateral proximal lumbosacral plexopathy and painful hip flexion due to evident malignant involvement of the psoas [1]. It is a rare entity and its incidence is less than 1% [1], this is due to the several protective mechanisms against metastatic involvement that muscles have [2]. MPS usually occurs in patients with advanced and recurrent cancer [1], and female genital tract malignancies are the most frequent causes [1], it generally occurs as a result of systemic spread [3].

Metastasis in the psoas muscle might arise in the psoas lymph nodes located between the musculature and the spine [4]. Most lesions are incidentally discovered on follow-up helical CT and most of them are neither painful nor palpable [3,5], but the adoption of combined PET/CT should increase its incidence [5]. Psoas metastasis presents with a broad spectrum of radiological features [2,4,5], but abscess-like intramuscular lesion with central low attenuation and rim enhancement is the most frequent appearance of psoas metastasis [4]. Several reports have proposed approaches for the management of MPS, but no single, crucial protocol has been established [1]. Treatment depends on the clinical setting and the condition of the patient. Therapeutic options include radiotherapy, chemotherapy and surgical excision [1,3]. The survival of patients with MPS is very short with median survival duration of 5.5-10.7 months after diagnosis [1].

Conclusion

Psoas metastases are rare. Very often, CT imaging could find abscess-like lesions especially in the absence of known primary cancer, this is why core needle biopsy is mandatory to confirm the diagnosis.

Competing interests

The authors declare no competing interests.

Authors' contributions

Study concept and design: Youssef Kharbach, Abdelhak Khallouk. Data acquisition analysis: Youssef Kharbach, Rachidi Alaoui Siham, Abdelhak Khallouk. Drafting of manuscript and interpretation of data: Youssef Kharbach, Abdelhak Khallouk. Critical revision of the manuscript: Abdelhak Khallouk. All authors read and approved the final version of the manuscript.

Figures

Figure 1: computed tomography (CT) image showing psoas abscess-like lesion with homolateral hydronephrosis

Figure 2: computed tomography showing a well-defined hypodense lesion in the right psoas muscle, measuring 4 x 3.6 x 3 cm

References

1. Shiro Takamatsu, Kosuke Murakami, Hisamitsu Takaya, Takako Tobiume, Hidekatsu Nakai, Ayako Suzuki *et al.* Malignant psoas syndrome associated with gynaecological malignancy: Three case reports and a review of the literature. *Mol Clin Oncol.* 2018;9(1): 82-6. **PubMed | Google Scholar**
2. Alexey Surov, Johanne Köhler, Andreas Wienke, Hubert Gufler, Andreas Gunter Bach, Dominik Schramm *et al.* Muscle metastases: comparison of features in different primary tumours. *Cancer Imaging.* 2014 May 6;14(1): 21. **PubMed | Google Scholar**
3. María José Molina-Garrido, Carmen Guillén-Ponce. Muscle metastasis of carcinoma. *Clin Transl Oncol.* 2011;13(2): 98-101. **PubMed | Google Scholar**
4. Surov A, Hainz M, Holzhausen HJ, Arnold D, Katzer M, Joerg Schmidt J *et al.* Skeletal muscle metastases: primary tumours, prevalence, and radiological features. *Eur Radiol.* 2010;20(3): 649-58. **PubMed | Google Scholar**
5. Ong N, George M, Dutta R, NG CH. CT Imaging Features of Skeletal Muscle Metastasis. *Clin Radiol.* 2019; 74(5): 374-7. **PubMed | Google Scholar**



Figure 1: computed tomography (CT) image showing psoas abscess-like lesion with homolateral hydronephrosis



Figure 2: computed tomography showing a well-defined hypodense lesion in the right psoas muscle, measuring 4 x 3.6 x 3 cm