Primary retroperitoneal benign mucinous cystadenoma in a male

Malek Barka, Faouzi Mallat, Mohamed Ben Mabrouk, Chaima Mrad, Khaled Ben Ahmed, Wissem Hmida, Ghassen Tlili, Sidiya Ould Chavey, Sarra Mestiri Sonia Ziadi, Faouzi Mosbah

ABSTRACT

Introduction: Retroperitoneal mucinous cystadenoma is extremely rare, prevailing specifically in female gender, with unclear histogenesis. Only three cases concerning male patients have been reported.

Case Report: We report a case of a 75-year-old male presented with right flank pain and a palpable mass. An abdominal computed tomography scan revealed a retroperitoneal tumor resulting after the histological examination to a primary retroperitoneal mucinous cystadenoma.

Conclusion: This is the fourth case of primary retroperitoneal mucinous cystadenoma of benign type in a male reported in literature. Several hypotheses may explain the histogenesis of this pathological process. Radical resection is the treatment of choice.
Primary retroperitoneal benign mucinous cystadenoma in a male

Malek Barka, Faouzi Mallat, Mohamed Ben Mabrouk, Chaima Mrad, Khaled Ben Ahmed, Wissem Hmida, Ghassen Tlili, Sidiya Ould Chavey, Sarra Mestiri Sonia Ziadi, Faouzi Mosbah

ABSTRACT

Introduction: Retroperitoneal mucinous cystadenoma is extremely rare, prevailing specifically in female gender, with unclear histogenesis. Only three cases concerning male patients have been reported. Case Report: We report a case of a 75-year-old male presented with right flank pain and a palpable mass. An abdominal computed tomography scan revealed a retroperitoneal tumor resulting after the histological examination to a primary retroperitoneal mucinous cystadenoma. Conclusion: This is the fourth case of primary retroperitoneal mucinous cystadenoma of benign type in a male reported in literature. Several hypotheses may explain the histogenesis of this pathological process. Radical resection is the treatment of choice.

Keywords: Cystadenoma, Male, Mucinous, Retroperitoneal

INTRODUCTION

Retroperitoneal tumors account for less than 0.2% of all neoplasm [1]. Primary retroperitoneal tumors of mucinous type is an extremely rare entity that affects, almost exclusively women [2] and can be subdivided into benign, borderline or cystadenocarcinoma [3]. Since 1965, only 51 cases have been reported in literature [4]. We report a case of a 78-year-old male presented with primary retroperitoneal mucinous cystadenoma of benign type. In our knowledge, this is the fourth case reported in literature.

CASE REPORT

A 75-year-old male admitted to our hospital complaining of right flank pain and a palpable mass that was constantly growing up during the last three months. There were no associated features, and no aggravating or relieving factors. His past medical history included a lung hydatid cyst operated three years ago. Abdominal examination revealed a firm, sizeable and hard mass at the right abdomen extending from the inferior ribs to the right iliac crest. Biological analyses were normal.

Ultrasonography of the abdomen demonstrated a 20-cm well defined cystic mass. Abdominal computed tomography (CT) scan revealed a large cystic lesion...
occupying the right retroperitoneal space and measuring 20×14 cm (Figure 1).

The patient underwent laparotomy and a tumoral exeresis has been performed. The patient made an uncomplicated postoperative recovery. Microscopic examination reported a retroperitoneal mucinous cystadenoma of benign type (Figure 2).

**DISCUSSION**

This is the 23rd reported case of a benign primary retroperitoneal mucinous cystadenoma in literature (Table 1) and only the fourth primary retroperitoneal mucinous cystadenoma (PRMC) diagnosed in a male [5–26].

This entity was first described by Handfield–Jones in 1924 in his study on retroperitoneal cysts [26]. Only three cases of pure PRMC in a male patient were reported in literature. The retroperitoneal location of these tumors is rare because of the non-existence of epithelial cells in this area so the histogenesis of PRMC remains unclear; one theory involves that that these tumors may arise from a coelomic epithelium which normally during the embryogenesis converts to peritoneal mesothelium and ovarian germinal epithelium but that become trapped in the retroperitoneum [27–28]. Some immunohistochemical and ultrastructural similarity with ovarian mucinous tumors as positive match to cytokeratin 7 and cytokeratin 20 antibodies supports this hypothesis [29]. A second hypothesis involves the seeding of ectopic ovarian tissue in the retroperitoneum [30]. Another histogenesis suggests the proliferation of mucinous epithelium in retroperitoneal teratoma [31]. Clinical signs and symptoms are non-specific including predominantly an abdominal mass, chronic abdominal pain or both. Radiologically, this entity presents a cystic formation repressing the organs around and there are a wide range of differential diagnoses including lymphangioma, cystic teratoma, lymphocele, urinoma and cystic mesothelioma [32]. In our case, because of a history of lung hydatid cyst, a second localization in the retroperitoneum was suspected. Ultrasonography is not specific [17].

**Table 1:** Cases of primary retroperitoneal mucinous cystadenoma of benign type reported in the literature.

<table>
<thead>
<tr>
<th>Ref</th>
<th>Case</th>
<th>Age</th>
<th>Sex</th>
<th>Presenting complaint</th>
<th>Investigations</th>
</tr>
</thead>
<tbody>
<tr>
<td>[12]</td>
<td>Prabhuaj (2008)-</td>
<td>M</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>85</td>
<td>F</td>
<td>Pain</td>
<td>-</td>
</tr>
<tr>
<td>[18]</td>
<td>Tamura (2003)</td>
<td>14</td>
<td>F</td>
<td>Incidental</td>
<td>CT, MRI, Lap</td>
</tr>
<tr>
<td>[20]</td>
<td>Balat (2001)</td>
<td>44</td>
<td>F</td>
<td>Mass</td>
<td>-</td>
</tr>
</tbody>
</table>

Continued...
The diagnostic value of computed tomography and magnetic resonance imaging scan is similar to differentiate between a cystic teratoma and cystadenoma through detection of calcification within the cyst and the description of the tumor in relation to soft tissue and radiological evidence of its origin [33]. No blood profile abnormalities are specific to PRMC; previous cases have demonstrated an increase in carcinoembryonic antigen (CEA) and CA 19-9 [34–36]. Surgery is the preferred treatment for most cystic retroperitoneal masses [37] by a complete enucleation [38].

CONCLUSION

We present a rare case of primary retroperitoneal mucinous cystadenoma of benign type, the fourth in a male patient. Several hypotheses may explain its histogenesis. Surgical excision is advised for diagnostic assessment and management. Owing to the small number of reported cases and the insufficient surveillance data, prognosis of recurrence is unknown.

Acknowledgements

We are grateful to Dr. Faouzi Mosbah for his comments on the manuscript.

Author Contributions

Malek Barka – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Faouzi Mallat – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Mohamed Ben Mabrouk – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Chaima Mrad – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Final approval of the version to be published

Khaled Ben Ahmed – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Final approval of the version to be published

Wissem Hmida – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Final approval of the version to be published

Ghassen Tlili – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Final approval of the version to be published

Sidiya Ould Chavey – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Final approval of the version to be published

Sarra Mestiri – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Final approval of the version to be published

Sonia Ziadi – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Faouzi Mosbah – Substantial contributions to conception and design, Acquisition of data, Drafting the article, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

Copyright

© 2015 Malek Barka et al. This article is distributed under the terms of Creative Commons Attribution License which permits unrestricted use, distribution and reproduction in any medium provided the original author(s) and original publisher are properly credited. Please see the copyright policy on the journal website for more information.

REFERENCES


Edorium Journals: An introduction

Edorium Journals Team

About Edorium Journals
Edorium Journals is a publisher of high-quality, open access, international scholarly journals covering subjects in basic sciences and clinical specialties and subspecialties.

Invitation for article submission
We sincerely invite you to submit your valuable research for publication to Edorium Journals.

But why should you publish with Edorium Journals?
In less than 10 words - we give you what no one does.

Vision of being the best
We have the vision of making our journals the best and the most authoritative journals in their respective specialties. We are working towards this goal every day of every week of every month of every year.

Exceptional services
We care for you, your work and your time. Our efficient, personalized and courteous services are a testimony to this.

Editorial Review
All manuscripts submitted to Edorium Journals undergo pre-processing review, first editorial review, peer review, second editorial review and finally third editorial review.

Peer Review
All manuscripts submitted to Edorium Journals undergo anonymous, double-blind, external peer review.

Early View version
Early View version of your manuscript will be published in the journal within 72 hours of final acceptance.

Manuscript status
From submission to publication of your article you will get regular updates (minimum six times) about status of your manuscripts directly in your email.

Our Commitment

Six weeks
You will get first decision on your manuscript within six weeks (42 days) of submission. If we fail to honor this by even one day, we will publish your manuscript free of charge.

Four weeks
After we receive page proofs, your manuscript will be published in the journal within four weeks (31 days). If we fail to honor this by even one day, we will publish your manuscript free of charge and refund you the full article publication charges you paid for your manuscript.

Mentored Review Articles (MRA)
Our academic program “Mentored Review Article” (MRA) gives you a unique opportunity to publish papers under mentorship of international faculty. These articles are published free of charges.

Favored Author program
One email is all it takes to become our favored author. You will not only get fee waivers but also get information and insights about scholarly publishing.

Institutional Membership program
Join our Institutional Memberships program and help scholars from your institute make their research accessible to all and save thousands of dollars in fees make their research accessible to all.

Our presence
We have some of the best designed publication formats. Our websites are very user friendly and enable you to do your work very easily with no hassle.

Something more...
We request you to have a look at our website to know more about us and our services.

We welcome you to interact with us, share with us, join us and of course publish with us.

CONNECT WITH US

Edorium Journals: On Web
Browse Journals