

Peritoneal Pseudomyxoma: A Report on Two Cases of Different Origins and A Comparative Review of the Literature

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Abstract

Case Report

Peritoneal pseudomyxoma (PMP) is a rare condition characterized by the accumulation of mucin in the peritoneal cavity. Its origin is most often appendiceal, although forms of ovarian origin have been described. We report two cases illustrating these two etiologies. The first case involves a peritoneal pseudomyxoma of appendiceal origin presenting with progressive abdominal distension. The second case involves a peritoneal pseudomyxoma of ovarian origin confirmed histologically. Through these cases, we discuss the clinical, radiological, therapeutic, and prognostic aspects, comparing them to the major series in the literature.

Keywords: peritoneal pseudomyxoma, gelatinous ascites, appendix, ovary, peritoneal carcinomatosis.

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INTRODUCTION

Peritoneal pseudomyxoma (PMP) is a rare condition characterized by the progressive accumulation of mucin in the peritoneal cavity, secondary to the dissemination of mucinous epithelial cells. Its incidence is estimated at between 1 and 4 cases per million inhabitants per year. Appendiceal origin is predominant, while ovarian origin remains controversial.

The objective of this study is to report two cases of PMP of different origins and to compare them with data from the literature in order to better define the diagnostic and therapeutic characteristics of this condition.

OBSERVATIONS

Case 1: PMP of appendiceal origin

A 65-year-old female patient with no significant medical history presented with abdominal distension that had been present for two months, accompanied by pain in the right iliac fossa.

The physical examination revealed a distended abdomen with diffuse dullness and an umbilical hernia. An exploratory paracentesis yielded a yellowish, gelatinous fluid rich in protein.

Abdominal CT scanning revealed significant compartmentalized ascites with hepatic scalloping and a calcified cystic mass adjacent to the cecum suggestive of an appendiceal tumor.

A diagnosis of appendiceal PMP was made. The patient refused surgical treatment and underwent drainage punctures for symptomatic relief.

Case 2: PMP of ovarian origin

A 79-year-old female patient presenting with abdominal distension that had been progressing for one year, associated with hypogastric pain.

Imaging revealed abundant ascites with suspected peritoneal infiltration. Exploratory laparoscopy revealed gelatinous ascites with peritoneal nodules and a right ovarian mass.

A right adnexectomy was performed. Pathological and immunohistochemical studies confirmed the ovarian origin.

DISCUSSION

PMP is a rare condition with an often-insidious clinical presentation, which explains the frequent diagnostic delay. The predominant clinical signs are

abdominal distension and pain, found in the majority of case series.

Etiologically, the literature confirms the predominance of appendiceal origin (70–90% of cases). Ovarian origin remains controversial, with some studies suggesting secondary involvement rather than primary origin.

Imaging, particularly CT, plays a key role in diagnosis by highlighting characteristic signs such as gelatinous ascites and organ scalloping.

The standard of care is complete cytoreductive surgery combined with hyperthermic intraperitoneal chemotherapy (HIPEC), which significantly improves survival.

COMPARISON WITH LARGE SERIES IN THE LITERATURE				
Number of Study patients	Appendiceal origin	Ovarian origin	5-year Primary treatment survival	
Moran <i>et al.</i> , 100+	~80%	Rare	CRS + HIPEC	~80–90%
Bradley <i>et al.</i> , 101	90%	<10%	Surgery	~75%
Mittal <i>et al.</i> , Review	Majority	Rare	CRS + HIPEC	Up to 90%
Current series 2	50%	50%	Treatment Not evaluated incomplete	

This comparison shows that our findings are generally consistent with the literature, while illustrating the limitations of care in certain contexts.

CONCLUSION

Peritoneal pseudomyxoma is a rare condition predominantly of appendiceal origin. Ovarian origin, although possible, remains controversial. Diagnosis relies on imaging and histology. Optimal treatment combines cytoreductive surgery and HIPEC, but its availability remains limited in certain settings.

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Ethical Approval: Not required for this type of study.

REFERENCES

- Moran BJ, Cecil TD. The etiology, clinical presentation, and management of pseudomyxoma peritonei. *Surgical Oncology Clinics of North America*. 2003;12(3):585–603.
- Bradley RF, Stewart JH, Russell GB, Levine EA, Geisinger KR. Pseudomyxoma peritonei: review of the pathology and treatment. *American Journal of Clinical Pathology*. 2006;126(6):847–854.
- Mittal R, Chandramohan A, Moran B. Pseudomyxoma peritonei: natural history and treatment. *International Journal of Hyperthermia*. 2017;33(5):511–519.
- Sugarbaker PH. Cytoreductive surgery and perioperative intraperitoneal chemotherapy for pseudomyxoma peritonei. *European Journal of Surgical Oncology*. 2001;27(3):239–243.
- Carr NJ, Cecil TD, Mohamed F, *et al.*, A consensus for classification and pathologic reporting of pseudomyxoma peritonei. *American Journal of Surgical Pathology*. 2016;40(1):14–26.
- Ronnett BM, Zahn CM, Kurman RJ, Kass ME, Sugarbaker PH, Shmookler BM. Disseminated peritoneal adenomucinosis and peritoneal mucinous carcinomatosis. *American Journal of Surgical Pathology*. 1995;19(12):1390–1408.
- Chua TC, Moran BJ, Sugarbaker PH, *et al.*, Early- and long-term outcome data of patients with pseudomyxoma peritonei. *Annals of Surgery*. 2012;255(1):77–84.
- Smeenk RM, van Velthuysen ML, Verwaal VJ, Zoetmulder FA. Appendiceal neoplasms and pseudomyxoma peritonei.
- European Journal of Surgical Oncology*. 2008;34(2):196–201.