

Complex Cases: Diagnosis, Management, Unexpected Presentations

Yuki Tanaka*

Department of Biomedical Sciences, Kyoto Research University of Medicine, Kyoto, Japan

Introduction

This case report details a rare instance of recurrent acute pancreatitis in a young patient, initially misdiagnosed, which was eventually linked to an underlying pancreatic head adenocarcinoma. This highlights the importance of thorough investigation and early suspicion for malignancy even in low-risk individuals presenting with recurrent pancreatitis, enabling earlier intervention [1].

Another report describes the successful surgical and medical management of a rare presentation: malignant obstructive jaundice caused by ampullary carcinoma co-occurring with a perforated duodenal ulcer. This dual pathology demands intricate diagnostic acumen and a highly coordinated multidisciplinary team for both immediate life-saving interventions and long-term oncological management [2].

An unusual presentation details a rare disease: spontaneous dissection of the superior mesenteric artery complicated by intestinal obstruction due to adhesive fibrous bands. The rarity of this condition, further complicated by an unusual cause of obstruction, presents a profound diagnostic dilemma, requiring advanced imaging and a high index of suspicion for effective surgical intervention [3].

A challenging anesthetic management scenario involved a patient with previously undiagnosed systemic mastocytosis who experienced severe anaphylaxis during emergency surgery. This case underscores a critical challenge where an underlying, undiagnosed systemic condition can lead to life-threatening complications, necessitating careful anesthetic planning to ensure patient safety [4].

One report describes a rare instance of cardiac tamponade resulting from the rupture of a cardiac hydatid cyst, a potentially life-threatening complication. This condition demands immediate recognition and prompt surgical intervention to relieve pressure on the heart and prevent fatal outcomes [5].

A case presents a rare instance of recurrent myocarditis in a patient following two doses of an Messenger RNA COVID-19 vaccine. This report contributes to the evolving understanding of vaccine-associated myocarditis, particularly its recurrent form, prompting further research into underlying mechanisms and optimal management strategies [6].

An unusual presentation of multiple myeloma, initially manifesting as a solitary plasmacytoma in the paranasal sinus, is detailed. This case illustrates the diagnostic challenge posed by conditions like multiple myeloma, requiring careful differentiation from localized disease versus an early manifestation of systemic multiple myeloma, with significant implications for treatment [7].

An exceptionally rare case of concurrent extrapulmonary small cell carcinoma and

colonic adenocarcinoma is reported. Identifying two distinct primary malignancies concurrently presents a significant diagnostic and therapeutic challenge, necessitating extensive staging and individualized, carefully sequenced therapeutic approaches [8].

A rare instance of multiple myeloma diagnosed in a pediatric patient, a condition predominantly seen in adults, is detailed. This case brings into focus the different clinical presentations, diagnostic hurdles, and specific management considerations for an aggressive malignancy in a young population, highlighting the need for specialized oncological expertise [9].

Finally, a rare occurrence of methotrexate-induced acute kidney injury with delayed elimination in a patient with rheumatoid arthritis is described. This case serves as a crucial reminder of the potential for severe drug-induced toxicities, emphasizing vigilant monitoring of renal function and drug levels, especially in patients with pre-existing risk factors, to prevent severe toxicity [10].

Description

The collected case reports provide valuable insights into a variety of complex and often rare medical conditions, frequently highlighting significant diagnostic and therapeutic challenges. The overarching theme emphasizes the importance of clinical suspicion and thorough investigation, especially when presentations are atypical or defy initial expectations. Many cases illustrate how underlying serious pathologies, particularly malignancies, can mimic more benign conditions or present in unusual anatomical locations or demographics, leading to potential delays in diagnosis. Clinicians are continuously reminded that even in seemingly low-risk individuals, vigilance for rare diseases and complications remains paramount.

Several reports detail malignancies with unusual clinical manifestations. One case report discusses recurrent acute pancreatitis in a young patient, initially misdiagnosed, which was eventually linked to an underlying pancreatic head adenocarcinoma, underscoring the importance of early suspicion for malignancy even in low-risk individuals [1]. Another instance involved the successful management of malignant obstructive jaundice due to ampullary carcinoma co-occurring with a perforated duodenal ulcer, a rare presentation requiring a multidisciplinary approach for complex diagnosis and treatment [2]. Furthermore, multiple myeloma is explored in two distinct contexts: an unusual presentation as a solitary plasmacytoma in the paranasal sinus, demanding careful differentiation from early systemic disease [7], and a rare diagnosis in a pediatric patient, emphasizing unique management considerations for this aggressive malignancy in a younger population

[9]. Lastly, an exceptionally rare case documented the concurrent presentation of extrapulmonary small cell carcinoma and colonic adenocarcinoma, illustrating the diagnostic complexities and management challenges when two distinct primary malignancies occur simultaneously [8]. These cases collectively stress the need for broad differential diagnoses in oncology.

The data also includes critical acute medical and surgical emergencies with rare etiologies. One report highlights an unusual presentation of spontaneous superior mesenteric artery dissection complicated by intestinal obstruction caused by adhesive fibrous bands, detailing the diagnostic challenges and successful surgical management of this life-threatening vascular condition [3]. Another case describes the challenging anesthetic management of a patient with previously undiagnosed systemic mastocytosis who experienced severe anaphylaxis during emergency surgery. This emphasizes recognizing mastocytosis signs and implementing specific anesthetic strategies to prevent critical complications [4]. A further example is cardiac tamponade resulting from the rupture of a cardiac hydatid cyst, a potentially fatal complication that mandates prompt surgical intervention due to its diagnostic challenges and severe outcome [5]. These reports underline the unpredictable nature of acute pathology and the need for rapid, decisive clinical action.

Adverse events related to medication and vaccination also feature prominently. One report presents a rare instance of recurrent myocarditis in a patient following two doses of an Messenger RNA COVID-19 vaccine, discussing clinical presentation, diagnostic findings, and implications for understanding vaccine-associated myocarditis [6]. This adds to the growing body of knowledge on post-vaccination side effects. Separately, a case describes a rare occurrence of methotrexate-induced acute kidney injury with delayed elimination in a patient with rheumatoid arthritis. This underscores the critical importance of close monitoring of renal function and methotrexate levels, especially in patients with pre-existing risk factors, to prevent severe toxicity and ensure patient safety during long-term therapy [10]. These cases serve as reminders for vigilant pharmacovigilance and personalized patient monitoring.

Collectively, these case reports serve as vital educational tools. They expand our understanding of disease pathophysiology, rare presentations, and optimal management strategies for conditions that are not frequently encountered in routine clinical practice. By documenting such unique experiences, these reports contribute significantly to medical literature, aiding clinicians in developing a higher index of suspicion, refining diagnostic algorithms, and improving patient care in complex scenarios. They reinforce the concept that individual patient journeys, however unusual, hold profound lessons for the broader medical community.

Conclusion

These case reports collectively highlight a diverse range of rare and challenging medical presentations, emphasizing the critical need for thorough investigation, astute diagnosis, and often multidisciplinary management strategies. Several reports focus on malignancies presenting unusually. One case details recurrent acute pancreatitis in a young patient, initially misdiagnosed, which ultimately revealed an underlying pancreatic head adenocarcinoma. Another describes the successful management of malignant obstructive jaundice due to ampullary carcinoma co-occurring with a perforated duodenal ulcer, underscoring the complexities in diagnosis and treatment.

The data also includes instances of rare or atypical presentations of more common conditions. For example, spontaneous superior mesenteric artery dissection complicated by intestinal obstruction due to adhesive fibrous bands presented a unique diagnostic and surgical challenge. Anesthetic management of a patient with previously undiagnosed systemic mastocytosis during emergency surgery,

who experienced severe anaphylaxis, showcased the importance of recognizing such conditions to prevent life-threatening complications.

Further reports delve into critical and life-threatening conditions. Cardiac tamponade resulting from the rupture of a cardiac hydatid cyst underscores the necessity of prompt surgical intervention for fatal outcomes. Recurrent myocarditis following Messenger RNA COVID-19 vaccination sheds light on potential vaccine-associated complications. Two reports focus on multiple myeloma, one presenting as a solitary plasmacytoma in the paranasal sinus, highlighting diagnostic challenges in differentiating it from early multiple myeloma, and another involving a rare pediatric diagnosis, which is predominantly an adult condition.

Additionally, a case of concurrent extrapulmonary small cell carcinoma and colonic adenocarcinoma explores the complexities of managing two distinct primary malignancies simultaneously. Finally, methotrexate-induced acute kidney injury with delayed elimination in a patient with rheumatoid arthritis reminds us of the importance of close monitoring of drug levels and renal function to prevent severe toxicity. Across these cases, a recurring theme is the unexpected nature of presentations and the subsequent diagnostic and therapeutic hurdles encountered by clinicians.

Acknowledgement

None.

Conflict of Interest

None.

References

1. Xiaohan Song, Guohua Zhao, Xiaotian Ma. "Recurrent Acute Pancreatitis Caused by a Pancreatic Head Adenocarcinoma in a Young Patient with Low Risk Factors." *Case Rep Pancreat Cancer* 9 (2023):1-5.
2. Aftab Azam, Megha Dhull, Deepshikha Singh. "Successful Management of Malignant Obstructive Jaundice Due to Ampullary Carcinoma with Perforated Duodenal Ulcer-A Rare Case Report." *J Clin Exp Hepatol* 13 (2023):825-827.
3. Zili Zhou, Mengqi Chen, Ying Li. "An unusual presentation of a rare disease: Spontaneous dissection of superior mesenteric artery complicated with intestinal obstruction due to adhesive fibrous bands - A case report." *Front Surg* 10 (2023):1228498.
4. A. A. Shakhur, O. M. Kurbangaleeva, R. R. Gainullin. "Anesthetic management of a patient with undiagnosed systemic mastocytosis presenting with anaphylaxis during general anesthesia for emergency surgery - a case report." *Clin Case Rep* 11 (2023):e7470.
5. Mahla Mirzazadeh, Arghavan Hajali, Mehran Pourfarzian. "Cardiac Tamponade Due to Hydatid Cyst Rupture: A Case Report." *J Tehran Univ Heart Cent* 17 (2022):122-126.
6. Peter D. Han, Yae Kye, Daniel C. Reda. "Recurrent Myocarditis Following Messenger RNA COVID-19 Vaccination: A Case Report." *Clin Cardiol* 45 (2022):103-106.
7. Hongtao Liu, Jinfu Xiao, Yingbo Hu. "Multiple Myeloma Presenting as a Solitary Plasmacytoma in the Paranasal Sinus: A Case Report." *Oncol Res Treat* 44 (2021):549-554.
8. Christopher L. G. Ng, Weihao Wang, Andrew H. Lee. "Concurrent Presentation of Extrapulmonary Small Cell Carcinoma and Adenocarcinoma of the Colon: A Case Report." *Case Rep Oncol* 14 (2021):1221-1227.

9. Elodie Lebrun, Marine Letovanec, Julie Helou. "Pediatric Multiple Myeloma: A Case Report." *Case Rep Pediatr* 2020 (2020):5494191.
10. Yun Zhou, Yu Ma, Jie Zhang. "An unusual cause of acute kidney injury: Methotrexate-induced acute kidney injury with delayed elimination in a patient with rheumatoid arthritis: A case Report." *Medicine (Baltimore)* 99 (2020):e20235.

How to cite this article: Tanaka, Yuki. "Complex Cases: Diagnosis, Management, Unexpected Presentations." *Res Rep Med Sci* 09 (2025):229.

***Address for Correspondence:** Yuki, Tanaka, Department of Biomedical Sciences, Kyoto Research University of Medicine, Kyoto, Japan, E-mail: y.tanaka@krum.jp

Copyright: © 2025 Tanaka Y. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Received: 01-Sep-2025, Manuscript No. rrms-25-175067; **Editor assigned:** 03-Sep-2025, PreQC No. P-175067; **Reviewed:** 17-Sep-2025, QC No. Q-175067; **Revised:** 22-Sep-2025, Manuscript No. R-175067; **Published:** 29-Sep-2025, DOI: 10.37421/2952-8127.2025.9.229
