

CASE REPORT

PEER REVIEWED | OPEN ACCESS

Ileal–ileal intussusception secondary to multiple small bowel recurrent metastatic melanoma: A case study

Adrian Jik Yan Tam, David Zula, Kian Jin Tan

ABSTRACT

Introduction: Intussusception in adults is a rare pathology. Recurrent metastatic melanoma must be considered in patients with a history of cutaneous melanoma. However, cases where there are multiple deposits can present a surgical dilemma for clinicians.

Case Report: We present a case of a 52-year-old male with intussusception on a background of cutaneous melanoma in remission over 20 years ago. He received an emergency laparotomy and resection of the pathological lead point and intussuscepted bowel. Two other 5 mm small bowel deposits were left in situ due to distance apart from one another and were undetectable one month later on positron emission tomography (PET) after targeted immunotherapy.

Conclusion: This case underscores the importance of prompt surgical exploration in symptomatic adult intussusception, especially in patients with prior melanoma history regardless of length of time of remission. In such patients, pain alone without bowel obstruction may be enough to prompt exploration. Complete oncological resection offers potential survival benefits, although the management of multiple bowel metastases remains challenging. It may be reasonable to leave concurrent small bowel metastases in situ in order to avoid multiple or extensive small bowel resections in specific cases where deposits are miniscule.

Keywords: Intestinal metastases, Intussusception, Metastatic melanoma

How to cite this article

Tam AJY, Zula D, Tan KJ. Ileal–ileal intussusception secondary to multiple small bowel recurrent metastatic melanoma: A case study. J Case Rep Images Surg 2025;11(2):29–33.

Article ID: 100164Z12AT2025

doi: 10.5348/100164Z12AT2025CR

INTRODUCTION

Intussusception in the adult population is rare, accounting for only 5% of all intussusception cases and 1% of all bowel obstruction cases [1, 2]. The classical triad of abdominal pain, palpable mass, and red-currant jelly stools common in the pediatric population is often absent in adults [3]. Contrasting the pediatric population with largely benign pathologies, 90% of cases in adults are secondary to pathology requiring surgical intervention [4]. Significantly, a malignant lead point occurs in approximately 65% of adults, necessitating consideration of an operative exploration and possible resection [5].

The role of melanoma in intussusception is even more rare. Although malignant melanoma frequently metastasizes to the gastrointestinal tract, hypothesized to be due to the rich blood supply to the small bowel, only 1.5–4.4% of gastrointestinal metastasis is detected prior to death, with intussusception making up only a portion of these [6, 7]. In cases of neoplasm induced intussusception, only 50% are from malignant neoplasms, and of these, approximately 50% are from metastatic melanoma [1, 2, 8]. Although this makes metastatic melanoma the most common malignant cause of small bowel intussusception, the overall incidence remains extremely rare [9].

Cases of multiple small bowel metastases present an added challenge to clinicians. Complete resection confers a higher survival rate, however, doing so can lead to high morbidity when metastases are widely spaced in the gastrointestinal tract. There is currently a lack of

Adrian Jik Yan Tam¹, David Zula¹, Kian Jin Tan²

Affiliations: ¹Registrar in the Department of General Surgery, Latrobe Regional Health, Traralgon, Victoria, Australia; ²Consultant surgeon in the Department of General Surgery, Latrobe Regional Health, Traralgon, Victoria, Australia.

Corresponding Author: Adrian Jik Yan Tam, 18 Britton Drive, Pakenham, Victoria, Australia; Email: adrian.j.tam@gmail.com

Received: 31 August 2025

Accepted: 25 October 2025

Published: 13 November 2025

evidence regarding best practice recommendations when there exist widely spaced small bowel metastases.

We present a rare case of ileo–ileal intussusception due to metastatic melanoma, with multiple concurrent small bowel deposits, recurring 20 years after initial diagnosis, immunotherapy and remission.

CASE REPORT

History

A 52-year-old male presented with a four week history of intermittent lower abdominal pain, associated with intermittently non-bloody, watery diarrhea. He denied any symptoms of bloating, nausea, or vomiting, and his bowels remained unobstructed. This was associated with a one month history of anorexia with 5 kg weight loss, and two month history of nocturnal diaphoresis. He had a history of previous cutaneous melanoma that was completely resected and treated with adjuvant immunotherapy more than 20 years ago.

Physical examination revealed a soft, non-distended abdomen, with a sausage-shaped mass in the right iliac fossa which was moderately tender but without signs of peritonism. His inflammatory markers, lactate, and vital signs were all within normal limits.

Subsequent computed tomography (CT) showed distal small bowel intussusception that was 9 cm in length, but without a clear lead point (Figures 1 and 2). There were no clear signs of bowel obstruction, however, 4 ill-defined hypodense liver lesions were identified in keeping with likely metastatic disease.



Figure 1. Axial image showing intussusception in the right lower abdomen.

Operation

He underwent same-day emergency lower midline laparotomy. Intraoperatively, a large malignant appearing lesion was found at the point of an irreducible intussusception, 30 cm proximal to the ileocecal valve

(Figure 3), along with 3 other small bowel lesions, all less than 5 mm and widely spaced throughout the small bowel. The intussuscepted bowel, as well as an additional lesion 15 cm proximal, was resected en bloc, and a primary anastomosis was performed. Given the presence of metastatic disease, the need for adjuvant systemic immunotherapy was highly likely. Thus, we decided not to perform multiple small bowel resections for the remaining lesions in an attempt to avoid the associated morbidity of such intervention, favoring surveillance in conjunction with systemic immunotherapy. The patient recovered and was discharged five days post-operatively without incident.



Figure 2: Coronal image showing same intussusception of the ileum.



Figure 3: Ileal–ileal intussusception.

Follow-up

Histopathology returned confirming metastatic melanoma with lymphovascular invasions, clear margins, and no positive lymph nodes.

He was subsequently referred to oncology who commenced ipilimumab and nivolumab combination immunotherapy. His PET scan one month later showed ongoing liver metastasis but no detectable small bowel disease. His two month post-operative CT showed improving liver metastasis but still not detectable small bowel disease. To date, his most recent five-month follow up PET-CT confirmed no small bowel disease and a decrease in avidity and number of liver metastasis.

DISCUSSION

In cases of intussusception complicated by bowel obstruction, the need for surgical intervention is clear. In adults, close monitoring of incidental, imaging discovered, intussusception is a recognized approach as many asymptomatic cases will spontaneously resolve [10]. The decision-making process becomes more complex when a previous history of melanoma exists.

In a study of 73 patients with intussusception and a history of previous melanoma, Perez et al. found that 64% of intussusception in asymptomatic patients resolved spontaneously without recurrence at three month follow-up [10]. They concluded that close observation is not unreasonable in asymptomatic intussusception. As our case highlights, pain alone may be an indication that intussusception is unlikely to spontaneously resolve, and resection should be considered as a preemptive measure to prevent the evolution of bowel obstruction. However, acute complications and symptom relief are not the only factors clinicians must consider.

Intestinal metastatic melanoma is an aggressive entity with historically a median survival of 7.5 months [11]. A high index of suspicion for disease recurrence is needed in patients with intussusception and a history of melanoma to ensure early detection and management without delay. In such cases, surgical resection provides the added opportunity for histopathological diagnosis to guide ongoing treatment, while also definitively managing the intussusception.

Perez et al. found that 15 of their 16 patients with previous cutaneous melanoma who underwent surgical resection for symptomatic intussusception had confirmed melanoma on histopathology [10]. Thus, in patients undergoing surgical intervention, oncological resection with wide margins is recommended [10, 12]. In order to minimize the length of bowel requiring resection, reduction of the intussusception prior to resection has previously been recommended in select cases [13]. However, this recommendation is only relevant where the cause of intussusception is benign, given the unacceptable risk of intra-abdominal tumor dissemination in neoplastic cases, and the need for clear resection margins [14].

A study of 251 patients found that resection of abdominal metastases of melanoma conferred a statistically significant survival rate regardless of symptomology [11, 15]. Specifically, complete resection

of intestinal metastatic melanoma conferred a 10 year survival of 54% versus 4% in patients treated with palliative surgery [16]. Others have been reported that surgical resection, especially when combined with modern immune checkpoint inhibitor immunotherapy such as ipilimumab and nivolumab, confers longer disease-free survivorship compared to resection or immunotherapy alone [17, 18]. Therefore the decision for complete surgical resection is straightforward in a patient with a solitary, or limited metastasis. Conversely, a patient such as ours with widely spaced gastrointestinal metastasis presents a much more complex management dilemma. In our case, we felt the intestinal metastatic deposits were too far apart to remove with a single bowel resection without risking short bowel syndrome, but also too small in size to justify multiple bowel resections. Our patient has shown no small bowel disease progression at two months suggesting that leaving small tumor deposits in situ may be a viable option in select patients.

It is worth noting, however, that surveillance strategies for in situ lesions managed with immunotherapy remains an area of debate, and Fluorodeoxyglucose (FDG)-PET-CT is the current recommendation regarding surveillance strategy; however, specific criteria have yet to be developed [19]. Furthermore, the risk versus benefit outcomes of either strategy needs to be considered on a patient–patient basis.

CONCLUSION

Intussusception secondary to metastatic melanoma is overall extremely rare. However, in patients with a history of previous melanoma, the chance of metastatic disease becomes highly probable. This holds true even in cases such as ours where the length of remission was over 20 years. Clinicians should not wait for bowel obstruction as pain alone may be enough to justify surgical intervention. As such, clinicians should have a low threshold to surgically explore and consider oncological resection in order to maximize survival benefits, regardless of length of remission from original cutaneous melanoma. Larger studies to confirm rates of metastatic melanoma in patients with intussusception and previous history of cutaneous melanoma are needed. It may be reasonable to leave behind small deposits in cases of multiple lesions; however, more research is required.

REFERENCES

1. Azar T, Berger DL. Adult intussusception. *Ann Surg* 1997;226(2):134–8.
2. Marsicovetere P, Ivatury SJ, White B, Holubar SD. Intestinal intussusception: Etiology, diagnosis, and treatment. *Clin Colon Rectal Surg* 2017;30(1):30–9.
3. Zubaidi A, Al-Saif F, Silverman R. Adult intussusception: A retrospective review. *Dis Colon Rectum* 2006;49(10):1546–51.

4. Marinis A, Yiallourou A, Samanides L, Dafnios N, Anastasopoulos G, Vassiliou I, et al. Intussusception of the bowel in adults: A review. *World J Gastroenterol* 2009;15(4):407–11.
5. Haas EM, Etter EL, Ellis S, Taylor TV. Adult intussusception. *Am J Surg* 2003;186(1):75–6.
6. Washington K, McDonagh D. Secondary tumors of the gastrointestinal tract: Surgical pathologic findings and comparison with autopsy survey. *Mod Pathol* 1995;8(4):427–33.
7. Kohoutova D, Worku D, Aziz H, Teare J, Weir J, Larkin J. Malignant melanoma of the gastrointestinal tract: Symptoms, diagnosis, and current treatment options. *Cells* 2021;10(2):327.
8. Wang LT, Wu CC, Yu JC, Hsiao CW, Hsu CC, Jao SW. Clinical entity and treatment strategies for adult intussusceptions: 20 years' experience. *Dis Colon Rectum* 2007;50(11):1941–9.
9. Chiang JM, Lin YS. Tumor spectrum of adult intussusception. *J Surg Oncol* 2008;98(6):444–7.
10. Perez MC, Sun J, Farley C, Han D, Sun AH, Narayan D, et al. Management of intussusception in patients with melanoma. *J Surg Oncol* 2019;119(7):897–902.
11. Bender GN, Maglinte DD, McLarney JH, Rex D, Kelvin FM. Malignant melanoma: Patterns of metastasis to the small bowel, reliability of imaging studies, and clinical relevance. *Am J Gastroenterol* 2001;96(8):2392–400.
12. Attieh P, Karam K, Fiani E, Ihab H. Small bowel intussusception and GI bleed secondary to metastatic melanoma: A case report and literature review. *Medical Reports* 2025;13:100266.
13. Hong KD, Kim J, Ji W, Wexner SD. Adult intussusception: A systematic review and meta-analysis. *Tech Coloproctol* 2019;23(4):315–24.
14. T Chand J, R R, Ganesh MS. Adult intussusception: A systematic review of current literature. *Langenbecks Arch Surg* 2024;409(1):235.
15. Gutman H, Hess KR, Kokotsakis JA, Ross MI, Guinee VF, Balch CM. Surgery for abdominal metastases of cutaneous melanoma. *World J Surg* 2001;25(6):750–8.
16. Gallino G, Maurichi A, Patuzzo R, Mattavelli I, Barbieri C, Leva A, et al. Surgical treatment of melanoma metastases to the small bowel: A single cancer referral center real-life experience. *Eur J Surg Oncol* 2021;47(2):409–415.
17. Sukniam K, Manaise HK, Popp K, Popp R, Gabriel E. Role of surgery in metastatic melanoma and review of melanoma molecular characteristics. *Cells* 2024;13(6):465.
18. Wong P, Wisneski AD, Tsai KK, Chang TT, Hirose K, Nakakura EK, et al. Metastatic melanoma to small bowel: Metastasectomy is supported in the era of immunotherapy and checkpoint inhibitors. *World J Surg Oncol* 2024;22(1):77.
19. Bourouail O, Bourabaa S, Halim EM, Njoumi N, Elhjouji A, Aitali A. Small intestinal metastasis of cutaneous melanoma in an elderly woman: Survival

benefits of surgery and novel targeted therapies – A case report. *Int J Surg Case Rep* 2025;127:110822.

Author Contributions

Adrian Jik Yan Tam – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

David Zula – Conception of the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Kian Jin Tan – Conception of the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Guarantor of Submission

The corresponding author is the guarantor of submission.

Source of Support

None.

Consent Statement

Written informed consent was obtained from the patient for publication of this article.

Conflict of Interest

Authors declare no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting Information files.

Copyright

© 2025 Adrian Jik Yan Tam 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.

Access full text article on
other devices



Access PDF of article on
other devices





INTERNATIONAL JOURNAL OF
CASE REPORTS AND IMAGES



VIDEO JOURNAL OF
CLINICAL RESEARCH



VIDEO JOURNAL OF
BIOMEDICAL SCIENCE



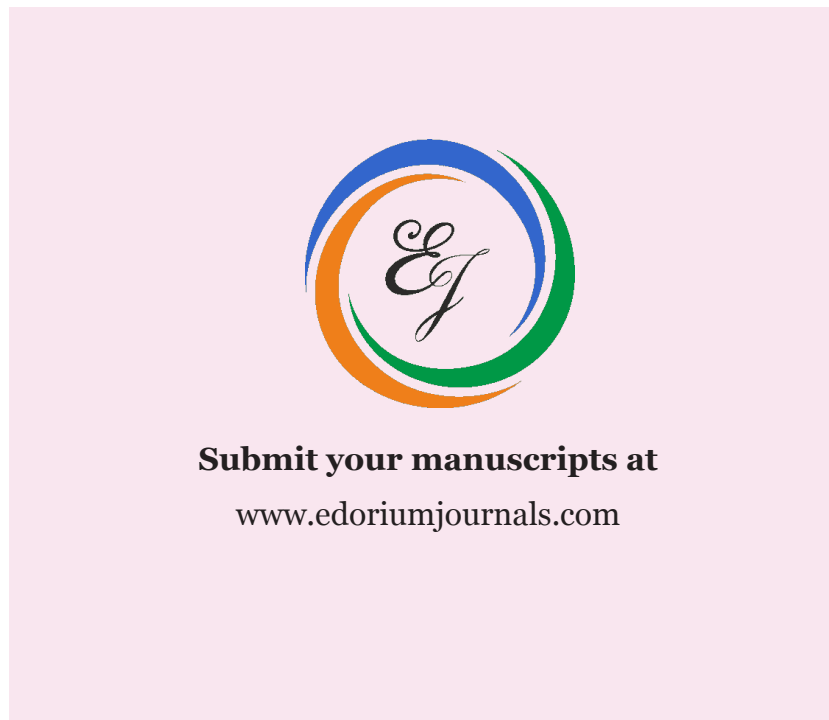
INTERNATIONAL JOURNAL OF
HEPATOBIILIARY AND
PANCREATIC DISEASES



INTERNATIONAL JOURNAL OF
BLOOD TRANSFUSION AND
IMMUNOHEMATOLOGY



EDORIUM JOURNAL OF
OPHTHALMOLOGY



EDORIUM JOURNAL OF
MEDICINE



EDORIUM JOURNAL OF
CARDIOTHORACIC AND
VASCULAR SURGERY



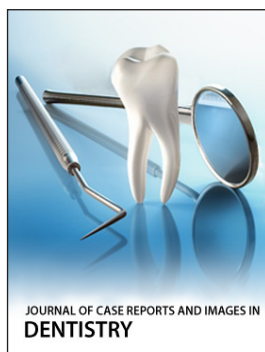
JOURNAL OF CASE REPORTS
AND IMAGES IN ORTHOPEDICS
AND RHEUMATOLOGY



EDORIUM JOURNAL OF
PSYCHOLOGY



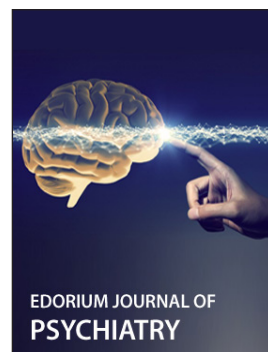
EDORIUM JOURNAL OF
CELL BIOLOGY



JOURNAL OF CASE REPORTS AND IMAGES IN
DENTISTRY



EDORIUM JOURNAL OF
CANCER



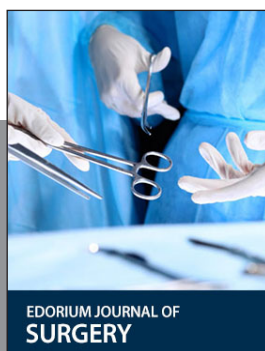
EDORIUM JOURNAL OF
PSYCHIATRY



JOURNAL OF CASE REPORTS AND
IMAGES IN INFECTIOUS DISEASES



EDORIUM JOURNAL OF
ANATOMY AND EMBRYOLOGY



EDORIUM JOURNAL OF
SURGERY



JOURNAL OF CASE REPORTS
AND IMAGES IN PATHOLOGY



EDORIUM JOURNAL OF
ANESTHESIA