

CASE REPORT

Transient adult intussusception with GIST as lead point – A rare case report

¹Dr. Kaustubh Gupta, ²Dr. Priya Das, ³Dr. Gaurav Raj Agarwal

¹Senior Resident, Department of Radiodiagnosis, Dr Ram Manohar Lohia Institute of Medical Sciences, Lucknow, India

²Junior Resident, Department of Radiodiagnosis, Dr Ram Manohar Lohia Institute of Medical Sciences, Lucknow, India

³Professor & HOD, Department of Radiodiagnosis, Dr Ram Manohar Lohia Institute of Medical Sciences, Lucknow, India

Corresponding Author

Dr. Kaustubh Gupta

Senior Resident, Department of Radiodiagnosis, Dr Ram Manohar Lohia Institute of Medical Sciences, Lucknow, India

Received Date: 28 August, 2024

Accepted Date: 19 September, 2024

ABSTRACT

Intussusception refers to telescoping of one segment of bowel into itself or an adjacent loop of bowel by peristalsis. Adult intussusception is a rare entity accounting for only 5 % of all intussusception with a tumour acting as the lead point in majority of cases. This case pertains to a case of intussusception with a bowel tumour acting as lead point which was later found to be GIST on tip.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

INTRODUCTION

Intussusception is telescoping of a proximal part of bowel intussusceptum into a distal segment intussusciens resulting in bowel obstruction. Intussusception is common in the paediatric age group and rare in adults, only representing 5% of the total cases [1] Whereas in the paediatric cases, intussusception and the underlying pathology is benign, it mostly malignant in the adult population [2]. Ileocecal type is the most common [3] imaging plays an important role in adult. Intussusceptions since mostly the underlying pathology needs surgical management and imaging provides details for pre-op planning as such cases cannot be managed conservatively by reduction. MDCT can differentiate between intussusception with tumour as lead point based on imaging criteria such as increase in cross sectional diameter, bowel wall edema and thickening [4].

CASE REPORT

We present a case of a 30-year-old female with dull aching pain in abdomen since past 9 days with obstipation since past 4 days. Initial X- RAY abdomen erect showed multiple dilated bowel loops in the right hypochondrium and the epigastrium which was s/o

bowel obstruction. USG showed dilated bowel loops with sluggish peristalsis however no obvious lesion was seen as well as no sign of intussusception. MDCT was done for further assessment and for determining case of obstruction and for evaluation of the transition point for surgical planning. CT demonstrated a heterogeneously enhancing lesion measuring in the lumen of the descending colon inferior to the splenic flexure with telescoping of the transverse colon, and caecum and long segment of terminal and distal ileum along with its mesentery and omentum into the descending colon.

All the large bowel loops and small bowel loops till the terminal ileum were dilated proximal to the descending colon. Immediate laparotomy was done and intra-operatively transverse colon was found to be gangrenous and long segmental bowel resection with side-to-side ileo-transverse anastomosis with a diverting ileostomy was done. Intra operatively, the colonic loops were edematous

Immediate operative period was uneventful and patient was discharged on 9th post operative day.

The resected bowel along with the intraluminal mass were sent for histopathology on immunohistochemical analysis the cells were positive for c-Kit (CD117) and CD34.

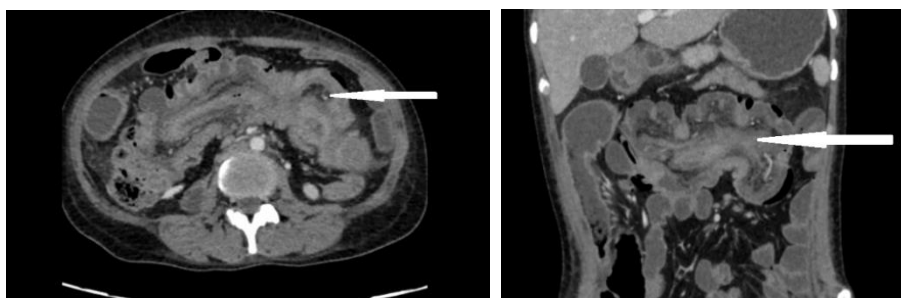


Fig 1,2: Axial CECT sections with a coronal reformat showing the colo-colic component of intussusception with dilated transverse colon with telescoping of ascending colon and mesentery into it.

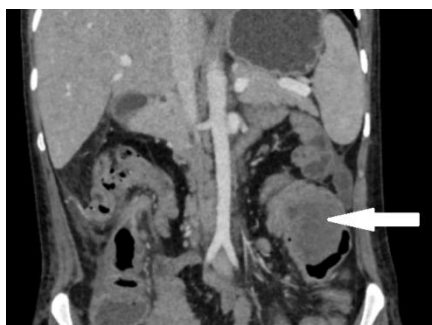


Figure 3: Hypodense mass lesion acting as lead point (white arrow)

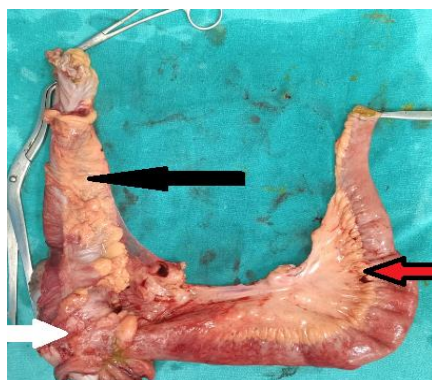


Figure 4: Surgical specimen showing mass (white arrow), ascending colon (black arrow) and ileum with its mesentery (red arrow)

DISCUSSION

We presented the case of a patient with symptoms suggestive of bowel obstruction. Adult intussusception is a rare entity in patients presenting with acute abdomen and is not commonly considered among the top differential diagnosis and neoplastic process is mostly the primary causative factor acting as the lead point and hence this fact highlights the importance of imaging with CT which has 100% specificity and sensitive in diagnosing the lead point [5] despite the vague clinical presentation. The dynamic nature of the intussusception can be determined from the fact that the patient when imaged 2 days prior to the study did not exhibit signs of intussusception or small bowel obstruction and highlights the importance of regular imaging follow up and that the intussusception was a transient phenomenon. A surgical approach towards the adult intussusception is always preferred as pointed out in study by Begos et al. [6] and is always followed by

segmental resection of the bowel with segment length depending upon the status of the bowel and onset of any ischemia as was done in our case. Wang et al. [7] have reported in their study that patients with adult intussusception have subacute and chronic history however in our case we observed an acute presentation. Most common locations in the gastrointestinal tract where an intussusception can take place are the junctions between freely moving segments and retroperitoneally or adhesionaly fixed segments as reported by Sachs M et al. [8] In our case similar pattern of intussusception was observed wherein both ileo-colic and colo-colic components of intussusception were present.

Although the imaging findings and clinical picture suggested a transient process, urgent surgical planning was done to resect the lesion along with bowel and the surgical team did not wait or attempt for reduction of intussusception due to a possible neoplastic lead point.

CONCLUSION

To conclude, we presented a case of ileo-colic and colo-colic intussusception which clinically presented with vague abdominal symptoms but later presented with frank bowel obstruction. Ultrasound done prior to CT did not demonstrate any intussusception but only dilated bowel loops. Worsening of the patient's symptoms after ultrasound and coupled with CT findings of intussusception with a mass as lead point suggested the dynamic nature of the condition and that the intussusception was transient. The case demonstrated the importance CT in diagnosing the rare case of adult intussusception along with its underlying causative lead point which is uncommon in adults and vague clinical presentation.

REFERENCES

1. Azar T., Berger D. Adult intussusception. *Ann. Surg.* 1997;226(2):134–138. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
2. 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. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
3. Honjo H., Mike M., Kusanagi H., Kano N. Adult intussusception: a retrospective review. *World J. Surg.* 2014;39(1):134–138. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
4. McKay R. Ileocecal intussusception in an adult: the laparoscopic approach. *JSLs.* 2006;10(2):250–253. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
5. Martín-Lorenzo J., Torralba-Martinez A., Lirón-Ruiz R., Flores-Pastor B., Miguel-Perelló J., Aguilar-Jimenez J., et al. Intestinal invagination in adults: preoperative diagnosis and management. *Int. J. Color. Dis.* 2004;19(1):68–72. [[PubMed](#)] [[Google Scholar](#)]
6. Kim Y., Blake M., Harisinghani M., Archer-Arroyo K., Hahn P., Pitman M., et al. Adult intestinal intussusception: CT appearances and identification of a causative Lead point. *RadioGraphics.* 2006;26(3):733–744. [[PubMed](#)] [[Google Scholar](#)]
7. Agha R.A., Franchi T., Sohrabi C., Mathew G., Kerwan A., SCARE Group The SCARE 2020 guideline: updating consensus Surgical CAseREport (SCARE) guidelines. *Int. J. Surg.* 2020 Dec;84:226–230. doi: 10.1016/j.ijssu.2020.10.034. [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
8. Moniakos A.A., Flamourakis M.E., Gkionis I.G., Giakoumakis M.I., Tsagkatakis E.S., Kazamias G.M., Spiridakis K.G., Christodoulakis M.S. Ileocolic intussusception in a woman: a case report and literature review. *Am. J. Case Rep.* 2021 Sep;2:22. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]