



The length of the intussusception increases with distal propagation of the ileocolic intussusception: reply to Karmazyn et al.

Larry A. Binkovitz¹

Received: 13 March 2019 / Accepted: 1 April 2019 / Published online: 1 June 2019
© Springer-Verlag GmbH Germany, part of Springer Nature 2019

Dear Editors,

We thank Drs. Karmazyn, Wanner and Billmire [1] for their comments on our paper [2]. Our series differs from the anecdotal group they describe. Our series included 119 consecutive patients with ileocolic intussusception. All patients had ultrasound evaluation before pneumatic reduction. Only 11 of the ileocolic intussusceptions in our series were irreducible, even at surgery, and required resection.

Karmazyn et al. [1] stated that ultrasound may underestimate ileocolic intussusception length given its limited field of view. We agree and discussed this limitation in the original paper [2].

Karmazyn et al. [1] suggested that the length of small bowel within the ileocolic intussusception increases as the ileocolic intussusception is encountered farther along the course of the colon. They did not provide any statistical analysis to support their observations. Our data do not support this. We found a range of ileocolic intussusception lengths but not a statistically significant relationship between ileocolic intussusception length and where along the course of the colon the ileocolic intussusception was encountered. We did speculate that our ultrasound studies may not have demonstrated the collapsed and invaginated colon associated with ileocolic intussusception. Perhaps this is included in the CT measurements made by Karmazyn et al. [1]. They did include a pathology specimen, Fig. 2,

measuring 17 cm and used it to support the suggestion that extensive lengths of small bowel can intussuscept. This specimen was necrotic descending colon and not small bowel and as such does not support their claim. It should be remembered that colon length in children increases with age and averages 52 cm in children 2 years old or younger (the majority of patients with ileocolic intussusception) and 73 cm in children 4–6 years old [3]. Thus a 10-cm ileocolic intussusception identified in the left lower quadrant strongly implies much of the apparent propagation of the ileocolic intussusception along the course of the colon is caused by colonic foreshortening or invagination and cannot be caused by the small bowel snaking its way through the ileocecal valve into the cecum fixated in the right lower quadrant and up and around the hepatic flexure and then around and down the splenic flexure.

Compliance with ethical standards

Conflicts of interest None

References

1. Karmazyn B, Wanner MR, Billmire DF (2019) The length of the intussusception increases with distal propagation of the ileocolic intussusception. *Pediatr Radiol*. <https://doi.org/10.1007/s00247-019-04390-9>
2. Binkovitz LA, Kolbe AB, Orth RC et al (2019) Pediatric ileocolic intussusception: new observations and unexpected implications. *Pediatr Radiol* 49:76–81
3. Mirjalili SA, Tarr G, Stringer MD (2017) The length of the large intestine in children determined by computed tomography scan. *Clin Anat* 30:887–893

✉ Larry A. Binkovitz
binkovitz.larry@mayo.edu

¹ Mayo Clinic,
200 First St SW,
Rochester, MN 55906, USA

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.