



Authors' Reply: Characteristics of Intestinal Volvulus and Risk of Mortality in Malawi

Laura N. Purcell¹ · Rachel Reiss¹ · Charles Mabedi² · Jared Gallaher¹ · Rebecca Maine¹ · Anthony Charles^{1,2}

Published online: 24 April 2020
© Société Internationale de Chirurgie 2020

We thank Dr. Atamanalp for his interest in our publication and for sharing his experience and intestinal volvulus series from Turkey. We present a six-year sub-Saharan African volvulus experience [1]. Our observed incidence is high, and our numbers were only limited by the duration of data collection.

As stated, the ileosigmoid knotting (ISK)/sigmoid volvulus (SV) ratio that we show is consistent with findings in other regions in sub-Saharan Africa, confirming the high incidence of ISK. Unfortunately, it is merely speculative as to the anatomical basis for both sigmoid volvulus and ISK. We would refer you to the case–control study from our group, evaluating the role of the anatomy of the sigmoid colon in the development of sigmoid volvulus [2]. We show that contrary to the prevalent belief that the root of the mesosigmoid is narrow in patients with SV, the mesosigmoid root width was similar in both cases and control. Unfortunately, in our current series, we did not evaluate the anatomical characteristics of patients with ISK.

Lastly, we disagree with Dr. Atamanalp regarding ISK being known as a graver disease, and the difference in

mortality observed can be attributable to time to presentation. To control for mean time to presentation between ISK and SV, as ISK patient presented earlier than SV patients, we deliberately risk-adjusted for time to presentation in our analysis, and there were no significant differences in risk-adjusted mortality between SV and ISK.

There is still much work needed in elucidating reasons for the high incidence of volvulus in the sigmoid belt. We are committed to adding to the body of knowledge.

Reference

1. Purcell LN, Reiss R, Mabedi C, Gallaher J, Maine R, Charles A (2020) Characteristics of intestinal volvulus and risk of mortality in Malawi. *World J Surg*. <https://doi.org/10.1007/s00268-020-05440-2>
2. Akinkuotu A, Samuel JC, Msiska N, Mvula C, Charles AG (2011) The role of the anatomy of the sigmoid colon in developing sigmoid volvulus: a case–control study. *Clin Anat* 24(5):634–637

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

✉ Anthony Charles
anthchar@med.unc.edu

¹ Department of Surgery, University of North Carolina School of Medicine, 4008 Burnett Womack Building, CB 7228, Chapel Hill, NC, USA

² Department of Surgery, Kamuzu Central Hospital, Lilongwe, Malawi