

Delays in presentation of intussusception and development of gangrene in Zimbabwe

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Background

Prompt diagnosis and treatment are considered key to successful management of intussusception. We examined pre-treatment delay among intussusception cases in Zimbabwe and conducted an exploratory analysis of factors associated with intraoperative finding of gangrene.

Methods

Data were prospectively collected as part of the African Intussusception Network with a questionnaire administered on consecutive patients with intussusception managed at Harare Children's Hospital. Delays were classified using the Three-Delays-Model: care-seeking delay (time from onset of symptoms to first presentation for health care), health-system delay (referral time from presentation to first facility to treatment facility) and treatment delay (time from presentation at treatment facility to treatment).

Results

Ninety-two patients were enrolled from August 2014 to December 2016. The mean care-seeking interval was 1.85 days, the mean health-system interval was 1.54 days, and the mean treatment interval was 1.14 days. Mean total time from symptom onset to treatment was 4.4 days. Being transferred from another institution added 1.39 days to the patient journey. A trend toward increasing rates of gangrene with longer pre-treatment delay was observed, but the associations were not statistically significant.

Conclusions

Significant care-seeking and health-system delays are encountered by intussusception patients in Zimbabwe. Approaches to improve the early diagnosis of intussusception and prompt referral of patients for treatment should be explored.