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Determining factors of clinical outcomes in paediatric intussusception at Johannesburg hospital

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Declaration

I, CHARLES PHILIP DO NASCIMENTO FERNANDES CARAPINHA declare that this research report is my own work. It is being submitted for the degree of MMED (Surg) In the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

24 May 2014

Dedication

GAG Decker 1931 - 2013

Presentations and Awards

Conference poster oral presentation

1. XXIII International Paediatric Surgical Research Symposium: Tokyo, Japan
   September 2010
   Intussusception in the 21st Century: The Johannesburg Experience.

2. 3rd Postgraduate Cross Faculty Symposium, University of the
   Witwatersrand: Johannesburg, October 2010
   Determining factors of clinical outcomes in Paediatric Intussusception:
   The Johannesburg Experience.
   1st Prize for Presented Poster

Conference oral presentation

1. Bert Myburgh Research Forum, University of the Witwatersrand:
   Johannesburg, November 2010
   Determining factors of clinical outcomes in Paediatric Intussusceptions at
   Johannesburg Hospitals.
2. 3rd Annual Paediatric Surgical Registrars Symposium, Durban
   September 2011Determining factors of clinical outcomes in Paediatric
   Intussusceptions at Johannesburg Hospitals.

Abstract

Aim: The aim of this research report is to assess which local epidemiological and clinical factors determine impact on the morbidity and mortality of intussusception, expressed as defined clinical outcomes.

Methods: A retrospective hospital record review of paediatric intussusception admitted to Chris Hani Baragwanath (CHBH) and Charlotte Maxeke Johannesburg Academic Hospitals (CMJAH) for the period of January 2007 to April 2010 was undertaken. The four determining factors evaluated are: Duration of symptoms, weight, palpable rectal intussusceptum, admission serum C-reactive protein, against seven possible clinical outcomes: Failed pneumatic reduction, perforation during attempted pneumatic reduction, intestinal resection, ileostomy, relook laparotomy, intensive care unit admission and mortality. A total of 108 cases were found of which 11 were excluded from data analysis.

Results: Sixty eight percent of cases were from CHBH and a total of 57% of cases were referred from surrounding medical facilities. 62 of 97 cases had an attempted pneumatic reduction with a 51.6% (32/62) success rate and an overall success rate of 32/97, 33%. Seven cases developed pneumoperitoneum during pneumatic reduction. A total of 65 cases underwent surgical management. Of those 81.5% (53/65) underwent intestinal resection. Ileostomy diversion was necessary in 13.8% (9/65) of operative cases and 11% (7/65) needed a second surgical procedure during the initial presenting admission. An overall mortality rate of 9.3% (9/97) is noted.

Conclusion: Intussusception in Johannesburg is associated with significant morbidity and mortality. Duration of symptoms and C - reactive protein levels are predictive for clinical outcomes in paediatric intussusception.

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