Chirurgia (Bucur). 2014;109(2):208-212

The Use of Mechanical Suture in the Treatment of Hirschsprung's Disease: Experience of 17 Cases

R.I. Spataru
Department of Pediatric Surgery, "Maria Sklodowska Curie" Emergency Clinical Hospital for Children, Bucharest, Romania

Abstract

Introduction: Hirschsprung's disease, or congenital megacolon, is a malformation characterised by the absence of ganglion cells in the distal bowel. Most often, the aganglionic segment includes the rectosigmoid, but it may extend proximally to variable length. In late years, significant improvements regarding the surgical treatment of Hirschsprung's disease were made, by the introduction of both one-stage transanal endorectal pull-through – laparoscopically assisted or not - and mechanical suture devices.

Aim: The purpose of this paper is to analyse our results with modified Duhamel procedure by using mechanical sutures for construction of a side–to–side colo-rectal anastomosis.

Materials and Method: We analysed 17 congenital megacolon cases operated in our department between 2007 – 2011 by the same pediatric surgical team, using the modified Duhamel technique performed with mechanical suture. It is the first series operated in our country using this procedure. 2 patients had a long colonic aganglionosis, 2 patients had a short aganglionotic segment and 13 patients had the common form of the disease. Mainly, we focused on technical details, hospitalization period, and immediate and late complications.

Results: The mean hospitalization period was of 9 days. Mortality in our series was 0. Postoperative complications consisted in minor bleeding (5 cases), adhesions and mechanical occlusion (1 case), and subocclusive symptoms due to remnant septum with subsequent fecaloma formation in the rectal ampula (4 cases). All of our operated cases had consequently a very good fecal continence.

Conclusions: We think that usage of mechanical suture devices in a single stage Duhamel procedure is extremely beneficial regarding both complication rate and hospitalisation time. This technique is safe, simple and efficient.

Key words: Hirschsprung's disease, Duhamel procedure, mechanical suture devices

Corresponding author: Radu Iulian Spataru, MD
Department of Pediatric Surgery, "Maria Sklodowska Curie" Emergency Clinical Hospital for Children, Bucharest, Romania
E-mail: radu_spataru@yahoo.com