Letter to the Editor

Intestinal anastomosis in children: it's time for a general consensus

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Dear Editor,

The search for most appropriate suture materials and suturing techniques is still a controversial aspect (1), both in general and pediatric surgery. Suture materials and suturing techniques for intestinal anastomosis are various. Suture materials can be of different type such as natural or synthetic, monofilament or multifilament, absorbable or non-absorbable. Suturing techniques are also assorted and can be hand-sewn or mechanical. Originally, intestinal anastomosis was exclusively hand-sewn and they were executed with a single layer, interrupted, absorbable suture (Vicryl) (2). In 1993, Martin and Motbey found that Maxon suture, a monofilament absorbable stitch, was superior to other available sutures for paediatric gastrointestinal surgery (3). Moreover, since early 80s, intestinal anastomosis began to be performed also mechanically (stapled intestinal anastomosis), with similar results among surgeons worldwide (4-6). With the advent of minimally invasive surgery new techniques have been reported. In 2001, Bax *et al*. described successfully the first case of laparoscopic diamond-shaped anastomosis of the bowel with an interrupted 5/0 Vicryl suture in a newborn baby (7). Recently, two stimulating studies regarding intestinal anastomosis have been published. Ross *et al*. concluded that extramucosal (seromuscular), single layer anastomosis performed with interrupted, non-absorbable monofilament (polypropylene) is an appropriate alternative technique to perform end-to-end anastomosis in infancy and childhood in both elective and emergency operations (8). Meanwhile, Gurien *et al*. found that continuous running suture for bowel anastomosis in young, growing animal model is feasible and do not lead to strictures or impaired growth when compared with simple interrupted technique (9).

In this evolving debate, surgeons continue to use the suture material and suturing technique considered more suitable according to their own experience. Nowadays, there is not a general consensus among surgeons about which suture material and suturing technique should be preferred. Therefore, a general consensus about most appropriate suture material and suturing technique for each situation, not only for intestinal anastomosis, is desirable. This would ensure to surgical patients a high standard care everywhere and, furthermore, a specific preparation for all residents in pediatric surgery of today and tomorrow.

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Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

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