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Invited Commentary to: "Is Diagnostic Laparoscopy in Children with Recurrent Abdominal Pain Justified?"

J. Schleef

Recurrent abdominal pain (RAP) is a very common symptom in childhood and adolescence and a severe problem for the affected children. Epidemiologic studies have reported that chronic and recurrent pain which interfere with normal daily activities have a prevalence of 10 to 15% in school aged children (2). There is a controversial discussion about the organic causes of the symptoms in this group of patients. Some authors and studies consider that in more than 90% of those patients there can be no organic causes identified, and they describe functional disturbances like dyspepsia, irritable bowel,or abdominal migraine (5, 8).

Nevertheless, all patients with abdominal recurrent pain are usually subjected to a complete clinical work-up to rule out any organic reason. This protocol normally includes a complete history (including social and family), a physical exam, stool and urine cultures, laboratory examinations, and ultrasound. In some cases, X-ray studies without or with contrast might be performed including MRI and CT scans for special considerations. This meticulous protocol usually does not in all cases answer the problems of this group of children.

The reported study includes 52 children with a long history of recurrent abdominal pain. Laparoscopy was performed on all children and their appendices were removed; four girls had inflammatory disease of the adnexes, and one girl had an ovarian cyst. Yet, not all children were examined for oxyuriasis; the pathologists diagnosed this disease in six cases that were histologically checked. The appendix was removed by Endo-GIA. The mean operation time was 50 min for diagnostic laparoscopy and appendectomy, with a complication rate of 2%. During the mean follow-up time of 75 days, 93% of patients were free of symptoms.

Laparoscopic appendectomy can be regarded as a safe technique (6). Especially in combination with diagnostic laparoscopy, appendectomy can be easily performed. Operation time and complication rate of all patients were comparable to those of other studies. The Endo-GIA is expensive and especially in blunt appendix it might be possible to use a cheaper, but nevertheless safe technique for closing the appendiceal stump, e.g. double Roeder slings.

The study reports a high success rate of over 90%. Compared with the literature, this percentage is very high and thus might give the reader the impression that elective appendectomy it is a curative approach in almost all cases of children with chronic abdominal pain. This is not representative. According to the authors of this study, histology of the appendix revealed acute inflammation in 5 cases (10%). In these cases the diagnosis of chronic recurrent abdominal pain should be carefully reexamined. There were no histo-pathological findings to be seen in 60% of children . If there was no associated disease, the success of operation is due to the removal of a non-pathological appendix. These aspects lead to a lot of questions, which should be kept in mind when we are dealing with the problem of abdominal pain of unknown origin in children.

What should be considered as recurrent abdominal pain?
- Can chronic abdominal pain be associated with the so-called finding of chronic appendicitis?
- Which other findings can be discovered by laparoscopy and are they really the cause for the pain?
- What is the psychological effect of a surgical intervention on recurrent abdominal pain without somatic reasons – is there a placebo effect (3)?

We believe that elective appendectomy can be curative in selective cases of a diagnostically suspected, non-acute appendiceal disease.Yet, the most important advantage of diagnostic laparoscopy is to rule out other pathological findings reported by others like infarction of the greater omentum, ovarian pathology, mesenteric cysts, Meckel's diverticula, adhesions (1, 4, 7). Histologic examination of the appendix will in some cases reveal chronic inflammation, rare neurinoma, and sometimes oxyuriasis.

There is a place for laparoscopy in diagnostic and therapeutic considerations on recurrent abdominal pain in a selected group of children. The primary approach, however, should emphasize the diagnostic aspects of laparoscopy and not appendectomy as the final step of a protocol in these children.

We hope that the authors of this interesting and controversial article will continue to follow up their children and might probably give us some answers to our unsolved questions with a larger number of patients and a longer time of observation.

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Invited Commentary to: "Is Diagnostic Laparoscopy in Children with Recurrent Abdominal Pain Justified?"

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The authors describe a group of 52 children and adolescents suffering from lower abdominal pain secondary to various causes. Diagnostic laparoscopy and concomitant appendectomy were found to be a safe and highly effective curative procedure.

I think the clinically unclear, recurrent abdominal pain should be added to the indications for laparoscopy in pediatric surgery (search for abdominal tests, pathologies of the ovary, cholecystectomy because of simple cholecystolithiasis, treatment of varicocele, . . .). Recently developed smaller instruments and new technologies have improved the benefit as well as the cosmetic results of these procedures in children. Thus, diagnostic and therapeutical laparoscopy is used for well defined indications in many pediatric surgery centers. It is doubtful, however, whether appendicitis in a non-obese child is a clear indication for a laparoscopic procedure.

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