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Correspondence

Controlled insufflation of air for diagnosis and treatment of acute intestinal intussusception

To the Editor

I have read with great interest the article by Kong et al[1] where the authors refer to a successful pneumatic reduction of acute intestinal intussusception in 17/23 cases (74% [95%CI 56-92]). The article makes no mention of whether the machine of air/barium enema utilized for the intussusception's reduction is connected to the patient by means of an occlusive catheter.

The purpose of this letter is to provide a little historical contribution regarding the first description of insufflation of air for diagnosis and treatment of intestinal intussusception.

A new method termed "controlled insufflation" of air for diagnosis and treatment of acute intestinal intussusception was developed by Fiorito et al in 1953,[2] and the authors described an original apparatus called a baroscope, connected to the patient's anus by means of an occlusive catheter (Fig.), which under fluoroscopic control allowed a successful reduction of intestinal intussusception in 81/86 cases (94% [95%CI 91-99]).[3] In contrast to Kong et al's patients, Fiorito et al's patients were all between 3 and 18 months of age.

According to the authors, the "controlled insufflation" had the following advantages. A) In diagnosis: 1) Simplicity, without the troubles and interruptions during fluoroscopic examination commonly seen in the barium-enema technique. 2) Fast diffusion of the air so that it advances promptly to the intussusception. 3) Clear-cut visualization of intussusception in all cases as it is seen surrounded by gas. 4) No contraindications. It can be used in the diagnosis of advanced cases with the highest pressure being 60 mmHg [6 Kpa]. 5) No interference with normal bowel physiology. 6) In all cases air passes the ileo-cecal valve. Ileo-cecal forms can therefore be diagnosed. B) In treatment: 1) The complete filling of the small bowel with air confirms the full reduction of the intussusception (Working within a maximum pressure of 130 mmHg [13 kPa]). 2) In our experience the results are much better than those obtained with the barium-enema technique.

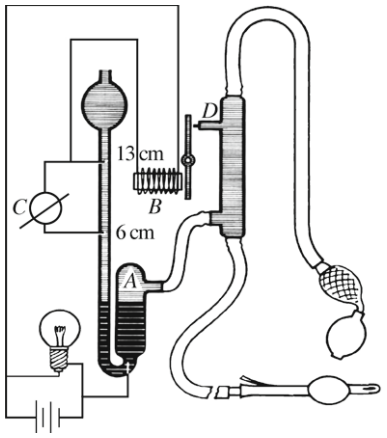

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Fig. The baroscope (schematic). A: mercury manometer with intraluminal wires at the bottom and at 60 and 130 mm; B: relay that operates a valve; C: interruptor to select highest pressures of 60 or 130 mmHg; D: valve for releasing gas pressure.

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Author reply

We read the letter with great caution. Dr Eduardo Cuestas showed great interest in the procedure of air insufflation for acute intussusception in young baby. What he concerns is just a single question, i.e., whether the tube connecting the anus and the machine is occlusive. In fact, with an automatic insufflation machine, the air pressure was manually set and then controlled automatically. Hence no additional control is needed for the connecting tube. With the aid of such automatic insufflation machine, the advantages quoted in the letter can be reached.

We are highly grateful to Dr. Cuestas for his interest in our paper and are pleased to respond to any query.

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Editor's note

We are grateful to Dr. Eduardo Cuestas for his mention of the first description of controlled insufflation of air for diagnosis and treatment of intestinal intussusception by Fiorito et al in 1953.[1] So that we could understand the history of pneumatic insufflation as a diagnostic and therapeutic modality for intestinal intussusception. However, Fiorito et al's patients were all between 3 and 18 months of age.

Intussusception is often seen in children aged between 4 months and 2 years with the peak incidence during 4 to 9 months. Infants younger than 3 months rarely suffer from this disease, and the treatment in this age group is mentioned less in the international literature and is a challenge for the clinician. The article by Kong et al[2] adds further information to clinical presentations and management of intussusception in infants younger than 3 months.

However, issues that deserve further clarification remain, for example, the proportion of infants younger than 3 months in all children with intussusception, the proportion of neonates in all children with intussusception, the diagnosis and treatment of intestinal intussusception in infants younger than 1 month.

We invite our readers to participate in this discussion and to provide articles and information on the clinical presentations and management of intussusception in infants younger than 3 months.

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