นิพนธ์ต้นฉบับ

Pneumatic dilatation in achalasia cardia : results and follow up

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Pneumatic dilatation is one of the current methods for the management of achalasia cardia. In our work, dilatations were performed on 14 patients with achalasia cardia over a 4 years period at Chulalongkorn Hospital. The diagnosis were made by barium esophagoscopy before dilatation. All patients had only single dalations by use of a Rigiflex. Achalasial Balloon Dilator with a diameter size of 3 cm. Relief of the dysphagia was obtained in 12 (85.7%) of the 14 patients. Two patients whose symptoms were not improved after dilatation underwent surgery and both became asymptomatic thereafter. Esophageal leakage was detected in one patient and was successfully treated by conservative treatment. All of the patients treated with pneumatic dilatation remained asymptomatic during a median follow-up period of 7 months. We recommended pneumatic dilatation as a primary treatment of achalasia cardia.

Key words : *Achalasia cardia, Pneumatic dilatation.*

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ปัจจุบันการใช้บอลลูนถ่างขยาย เป็นวิธีการหนึ่งในการรักษาโรค Achalasia cardia รายงานนี้ได้ทำการรักษาผู้ป่วย 14 รายที่ป่วยเป็นโรค Achalasia cardia ที่มารับการรักษาที่โรงพยาบาลจุฬาลงกรณ์ในช่วงเวลา 4 ปี โดยทุกรายจะได้รับการยืนยันการวินิจฉัยด้วย Barium swallowing และ Esophagoscopy หลังจากนั้นผู้ป่วยทุกรายจะได้รับการรักษาด้วยการใช้บอลลูนขนาดเส้นผ่าศูนย์กลาง 3 เซ็นติเมตร ถ่างขยายเพียงครั้งเดียว พบว่าได้ผลดีในผู้ป่วย 12 ราย (85.7%) ส่วนอีก 2 รายอาการคงเดิมและได้รับการผ่าตัดรักษาต่อ ภายหลังการผ่าตัดอาการดีขึ้นเช่นเดียวกัน ภาวะแทรกซ้อนที่พบภายหลังการถ่างขยาย พบเพียง 1 ราย คือ มีรอยปริรั่วของปลายหลอดอาหาร แต่สามารถวินิจฉัยและรักษาได้ผลดีโดยไม่ต้องผ่าตัด ได้ติดตามผลการรักษาภายหลังการถ่างขยายไปแล้ว 7 เดือน(โดยเฉลี่ย) พบว่าผู้ป่วยทุกรายมีอาการปกติดี ดังนั้นผู้เขียนจึงมีความเห็นว่า การใช้บอลลูนถ่างขยาย สมควรนำมาใช้เป็นวิธีแรกในการรักษาโรค Achalasia cardia

The ideal therapy for achalasia of the esophagus would reinstitute peristaltic activity and produce relaxation of the lower esophageal sphincter. This is achieved either by forceful pneumatic dilatation or by surgical esophagomyotomy. Many centers prefer surgical treatment. At present, video-thoracoscopic esophagomyotomy has been introduced to some centers to minimize the length of hospital stay, and patients tend to request non-surgical procedures. We present here our results and follow-up of pneumatic dilatation in 14 patients with achalasia cardia.

Materials and methods

Fourteen patients (4 males and 10 females; age ranging from 13 to 77 years with a mean of 39.2 years) with achalasia cardia were treated with pneumatic dilatation at the Department of Surgery of Chulalongkorn Hospital over a 4 year period (1989-1993). The diagnosis was based on clinical history, radiographic examination, and the endoscopic appearance of the esophagus. Baruim swallowing demonstrated a dilated esophagus with a narrow segment at the level of the lower esophageal sphincter (LES) which consistently failed to relax (Figure 1-3). Endoscopy was performed on all patients, mainly to confirm the diagnosis and exclude the presence of other abnormalities

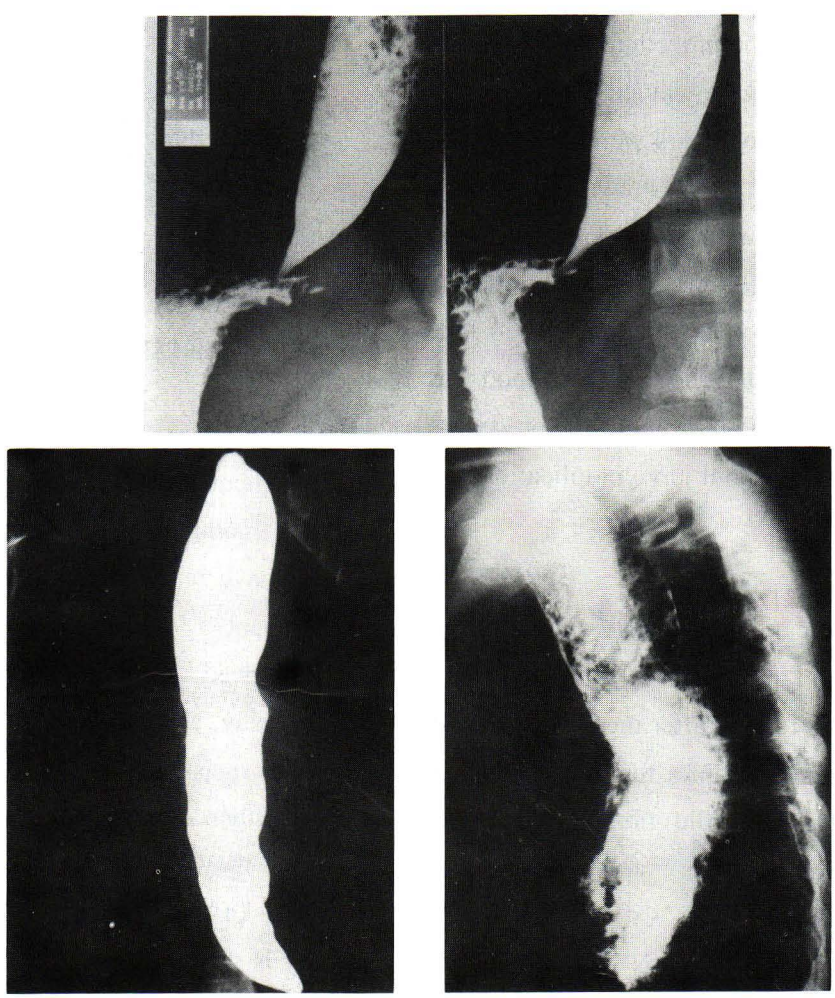

Figure 1-3. Radiographic finding before dilatation.

Pneumatic dilatation was performed following an overnight fasting. Most patients were dilated under local anesthesia without premedication, but 3 patients required general anesthesia. The flexible endoscope was inserted into the esophagus. Under flouoroscopy, when the end of the endoscope reached the LES, a metalic marker was placed on the patient's chest wall in order to locate the LES. A guide wire was then passed across the LES through the biopsy channel of the endoscope and then the endoscope was removed. A Rigiflex Achalasial Balloon Dilator, 3 cm. in diameter, was threaded over the guide wire under fluoroscopic control until the mid-part of the balloon was positioned across the LES metalic marker. The balloon was inflated to a pressure of 250-300 mmHg for one minute and then deflated. A few moments later, the procedure was repeated. The patients frequently complained of retrosternal pain and a few streaks of blood were usually seen on the balloon when it was withdrawn. Endoscopy was always performed after dialation to finish the procedure. The patients were allowed nothing orally for 6 hours and were then advised to take liquids only for the next 12 hours. Solid food was allowed on the following morning if the procedure was successful and without any complications.

Results

All of the patients had only single dilatations and 12 in 14 of them (85.7%) had relief of the dysphagia within 24 hours after the procedure and they left the hospital within a few days. Two of them, whose symptoms did not improve after dilatation, underwent surgery and both became asymptomatic thereafter.

Esophageal leakage was detected in one patient and was treated successfully by conservative treatment which included cessation of oral fluids, administration of a systemic antibiotic, and provision of intravenous fluids. The patient recovered well. Barium swallowing 2 months later showed normal esophageal function and no residual effects.

The follow-up period in our study ranged from 1 month to 22 months, with a median of 7 months. None of them developed recurrence of symptoms or any complications. Radiographic findings did not show any reflux. (Figure 4)

Figure 4. Radiographic finding after dilatation.

Discussion

Pneumatic dilatation has been used as a primary treatment of achalasia cardia and several authors have reported good results in 84-94% of their patients.[1-6] The advantages of this method are the speed of the procedure, short length of hospital stay, and the avoidance of surgery which has its own risks.

Other authors have favored surgical treatment and they have reported good results in more than 85% of their patients.[7-9] The advantage of surgery is the cutting of muscle fiber under direct vision for a more complete section of muscle

fibers. But reflux exophagitis is a major complication[8-10], hence it has been suggested to use dilatation as an initial treatment and cardiomyotomy to be carried out in later stages.

Complications like perforation have occasionally been reported in 0-4.9%[1-6] with the dilation technique and most cases can be treated successfully by conservative treatment.

This study has showed that pneumatic dilatation is a safe, simple and effective procedure. Therefore, we recommeded use of this procedure as the first line of treatment for achalasia cardia.

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