: 63 5 Vol. 63, No. 5, November, 2002

Proper Treatment for Megacolon after Various Anoplasties for Anorectal Malformation

Airi Han, MD., Yong Tak Koh, MD.¹, Jung-Tak Oh, MD., Seok Joo Han, MD., Seung Hoon Choi, MD. and Eui Ho Hwang, MD.

Purpose: The megacolon after repairing an anorectal malformation is not a rare complication, and there is much controversity on the causes, the treatment of choice and the results after a longterm follow-up. We present 5 cases of a megacolon after the repair of an anorectal malformation, which were controlled with either a surgical resection or conservative treatment.

Methods: Five patients with a megacolon after the repair of an anorectal malformation were studied. A retrospective chart review was done and fecal continence was evaluated with an individual interview.

Results: All five patients initially underwent conservative treatment with laxatives and/or enemas. One Patient responded well to conservative treatment and the diameter of the bowel reduced to normal size. Another patient responded to conservative treatment after correcting the location of the anus. Three patients needed a surgical resection and one of those needed a further procedure to correct the anal location. After the surgical resection of the megacolon and/or correction of the anus (one out of the three patients), they soon reported an almost normal bowel habit.

Coneclusion: The first step in treating a megacolon after repairing an anorectal malformation was conservative treatment. However patients without an adequate response to conservative treatment are best managed with a surgical resection. The cause of the megacolon is now under investigation and the lack of adequate management after repair is one of the subjects. (J Korean Surg Soc 2002;63: 403-408)

 Key Words: megacolon,anorectal malformation:

Yonsei University College of Medicine, Seoul and ¹Yonsei University Wonju College of Medicine, Wonju, Korea

가 . .

フト .(*I*) , フト .(2)

(fecal continence) 가 가 .(3-7) 가

15

1994 1 1 2001 12 31

(Poseterior sagittal anorectoplasty)
(cut-back anoplasty)

. 5 Table 1 .

.

·

2

, .

.

5 3, 2

2 , - 1 . Table 1

. 146.6

1

5

. S-

3

2 5 . -1

6

. , 1 가

Fig. 1. Case 1-Barium enema after 2-year follow-up with conservative treatment reveals the dilated Rectosigmoid colon.

Table 1. Demographic appearance, surgical procedures and results

Age/Sex	ARM type	Original operation	Location of anus	Final treatment	Result*
1. 7/M	rectobulbar urethral	PSARP	normal	LAR	good
2. 5/M	rectobulbar urethral	PSARP	normal	conservative	good
3. 11/F	rectobvestibular	cutback	anterior	LAR+PSARP	good
4. 14/F	rectovestibula	cutback	anterior	PSARP	fair
5. 5/M	low type	cutback	normal	LAR	good

ARM = anorectal malformation; PSARP = posterior sagittal anorectoplasty; LAR = Low Anterior Resection. *Results were estimated by Kelly score reference.

: 405

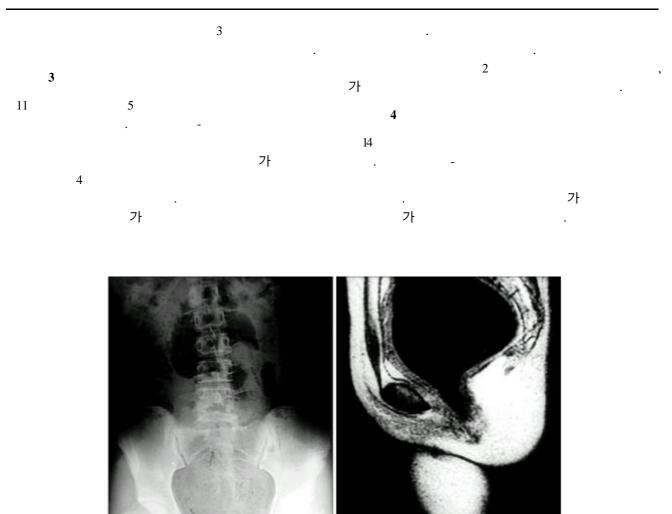


Fig. 2. (A) Case 4-Flat abdomen film reveals diliated rectum full up with stool, (B) Case 4-MRI of the same patients reaveals dilated rectosigmoid colon.

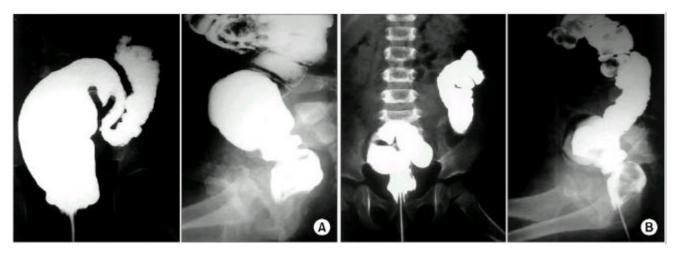


Fig. 3. (A) Case5-Barium enema after 2 month follow-up with conservative treatment reveals the dilated rectosigmoid colon, (B) Case 5-Barium enema 6 month after surgical resection of the dilated colon showed normal colonic caliber.

406 : 63 5 2002

```
가
                                          1
                                                                 .(2, 9, 11)
                                                                                                                   가
                                                    2
                                                                                                  가
                                                                                       .(3-7)
                                                                   가 가
       5
  5
                      3
                                                                              가
                                                                                                가
                                                                                                        .(13, 14)
                                               가
1
                                                                           (denervation)
                                                                           .(2, 10, 15)
                 2
                                                                                                                   가
S-
                                                      3
                                                                                       .(1,2,8,9,12)
                                                                                              .(1,2,8,9,10)
                                                                                                   (rectal ectasia)
가
        가
                                                                                                   가
가
                                  .(1,8,9) 1981 Pena가
                                                                    5%
                                                                                               .(3,4)
                                                       가
                                                                                                              .(3-7)
                                                                                               가
                                                                             가
                                                                                                               .(15)
                   .(8,9)
              (fecal continence)
         가
                                    .(8, 12)
                            (sphincter muscle)
                                                                                                                      가
                                                .(8-10)
                                                                                   .(5-7)
                                               가
                                                                   가
                                                                                                      가
                                                                                       .(15)
                                       .(2)
                                                                                                         .(3-7)
```

407

.(16,17) 가 1, 5 2 1, 가 1 2 2 2 가 가 3, 4 가 가 REFERENCES 가 4 1) Rintala R, Lindahl H, Marttinen E.Sariola H. Constipation is 3 a major functional complication after internal sphincter-saving posterior sagittal anorectoplasty for high and intermediate anorectal malformations. J Pediatr Surg 1993;28(8):1054-8. (fecal continence) 2) Rintala RJ, Lindahl HG. Fecal continence in patients having undergone posterior sagittal anorectoplasty procedure for a high anorectal malformation improves at adolescence, as constipation disapprears. J Pediatr Surg 2001;36(8) 1218-21. 3) Berengo M, Dodi G, Segato G, Urbani G. Primary megarectum associated with imperforate anus: report of a case. Dis Col Rectum 1975; 18(8):699-701. 4) Powell RW, Sherman JO, Raffensperger JG, Megarectum. A

가 5 (rectal dilatation)

가

가 (Hegar dilator)

.(13)

17(6):786-95.

continence in children with repaird anorectal malformations. J Pediatr Surg 1993;28(2):199-203. 7) Long L, Wang Y-X, Wu X-N, Zhang J-Z. Posterior sagittal

6) Pena A, Behery ME J. Mega sigmoid: A source of pseudoin-

rare complication of imperforate anus repair and its surgical

correction by endorrectal pullthrough. J Pediatr Surg 1982;

5) Cloutier R, Archambault H, D'Amours C, Levasseur L, Ouellet

deformities. J Pediatr Surg 1987;22(8):758-60.

D. Focal ectasita of the terminal bowel accompanying low anal

- apporoach: Megasigmoid resection and anal reconstruction for severe constipation and fecal incontinence after anoplasty. J Pediatr Surg 2000;35(7);1058-628.
- 8) Pena A, Hong A. Advances in the management of anorectal malformations. Am J Surg 2000; 180(5):370-6.
- 9) Bliss DP Jr, Tapper D, Anderson JM, Schaller RT Jr, Hatch EI, Morgan A, et al. Dose posterior sagittal anorectoplasty in patients with high imperforate anus provide superrior fecal continence? J Pediatr Surg 1996;31(1):26-30.
- 10) Rintala RJ, Lindahl H. Is normal bowel function possible after repair of intermediate and high anorectal malformations? J Pediatr Surg 1995;30(3):491-4.
- 11) Hassink EA, Rieu PN, Severijnen RS, Staak FH, Festen C. Are adults contents or continent after repair for high anal atresia? A long-term follow-up study in patients 18 years of age and older. Ann Surg 1993;2 18(2); 196-200.
- 12) Langemeijer RATM, Molenaar JC. Continence after posterior sagittal anorectoplasty. J Pediatr Surg 1991;26(5);587-90.

- Moss RL. The failed anoplasty: Successful outcome after reoperative anoplasty and sigmoid resection. J Pediatr Surg 1998;33(7):1145-7.
- 14) Tsugawa C, Hisano K, Nishijima E, Muraji T, Satoh S. Posterior sagittal anorectoplasty for failed imperforate anus surgery: lessons learned from secondary repairs. J Pediatr Surg 2000;35(11):1626-9.
- 15) Lee SL, DuBois JJ, Montes-Garces RG, Inglis K, Biediger W. Surgical manegement of chronic unremitting constipation and fecal incontinence associated with megarectum: A preliminary report. J Pediatr Surg 2002;37(1):76-9.
- 16) Benson CD, Lloyd JR, Smith JD. Resection and primary anastomosis in the management of stenosis and atresia of the jejunum and ileum. Pedatrics 1960;26:265-72.
- 17) Louw JH. Resection and end-to-end anastomosis in the management of atresia and stenosis of the small bowel. Surgery 1967;62(5):940-50.