

## (Non-Relaxing Puborectalis Syndrome)

### Association between Poor Bowel Habit and Non-Relaxing Puborectalis Syndrome

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**Purpose:** Constipation in children usually is due to poor bowel habit. Ignoring the urge to have a bowel movements initiates a vicious cycle of constipation. After a period of time children may stop feeling the urge, leading to fecal impaction. This leads to loss of anorectal reflex. What is the outcome of the children with long-standing poor bowel habit? **Methods:** Forty-two patients with obstructed defecation (non-relaxing puborectalis syndrome) diagnosed by defecogram and anorectal manometry were investigated with rectal sensation and elasticity studies (threshold of sense: TS, defecation sensation volume: DS, maximal tolerable volume: MTV, rectal compliance: RC), and colon transit time (CTT). All detailed questionnaires on the subject were completed. Eighteen patients (11F: 7M, mean age 39 years, range 16-75) with history of poor bowel habits since childhood were compared with 24 (16F: 8M, mean age 40 years, range 16-31) with no history of poor bowel habit. **Results:** Studies of colonic transit time demonstrated no significant difference in the right and left colon between two groups, but the rectosigmoid transit time in the poor bowel habits group was more increased than in the normal bowel habit group ( $P < 0.05$ ). The rectal wall compliance was increased in the poor bowel habit group as compared to the normal bowel habits group ( $P < 0.01$ ). Maximal tolerable volume and defecation sensation volume were greater in the poor bowel habits group than in the control group ( $P < 0.01$ ), but there was no significant difference in the threshold of sense between two groups. **Conclusions:** Prolonged poor bowel habit in childhood period leads to loss of rectal sensation, and provide an explanation for one of the pathophysiologic mechanism of non-relaxing puborectalis syndrome. (JKSCP 2000;16:402-406)

**Key Words:** Bowel habit, Non-relaxing puborectalis syndrome,

(gastrocolic reflex)

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가 , 가 (1) : 1×4.5 mm PVC 가 24 Sitzmark<sup>®</sup> (Konsyl Pharmaceuticals Inc., Fort Worth, Texas, U.S.A) 3 9 가 4 7 가 8 1.2 가 ,<sup>12,13</sup> Arhan<sup>14</sup> 가 가 (2) : 180 g , 400 g 1 가 200 250 ml Toomi (painter's caulking gun) 가 3 (fluoroscopy table) (plexiglass) X 5 X 15,16 42 (3) : 8 (ARM3/8, : 4.8 mm, : 0.8 mm, Arndorfer Specialties Inc., Greendale, Wis., U.S.A) 가 , (No. 223651, SensorMedics Co., Anaheim, Calif., U.S.A) 8 channel (Arndorfer Specialties Inc., Greendale, Wis., U.S.A) 0.5 ml 가 (SensorMedics Co., Anaheim, Calif., U.S.A) 가 .<sup>11</sup> 18 ( 11, 7, 39 , 16 75), 24 , Valsalva ( 16, 8, 40 , 16 71) .<sup>17</sup> 3 가 , 1 2/3 2 1 5 ml 30 ml 5 ml , 30 50 ml 10 ml , 60 ml 20 ml 2) (threshold of sneeze; TS), (defecation sense of vol-

**Table 1.** Comparison of colon transit time and rectal sensitivity between good bowel habits group and poor bowel habits group

Parameter		Good bowel habits group (n=24)	Poor bowel habits group (n=18)	Significance*
CTT (hr)	RT	5.7±7.3	9.2±8.2	NS
	LT	10.5±10.4	15.8±16.7	NS
	RS	6.6±10.5	26.4±16.0	P<0.05
Volume (ml)	TS	13.1±5.5	13.8±4.6	NS
	DV	139±47.4	305±111.8	P<0.01
	MTV	245±51	515±192.6	P<0.01
RC (ml/mmHg)		5.0±2.0	10.0±4.5	P<0.01

CTT = colon transit time; RC = rectal compliance; RT = right; LT = left; RS = rectosigmoid; TS = threshold of sense; DV = defecation sense of volume; MTV = maximal tolerable volume. \*unpaired t-test.

ume; DV), (maximal toler- mmHg, 가 5.0±2.0 ml/mmHg  
 able volume; MTV) 가 5.0 ml/mmHg  
 (5) : SPSS-win 9.0 가 (P<0.01)(Table 1).  
 , ± (mean ±  
 SD) , unpaired t-test  
 . P<0.05 .

(compliance)가  
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 19.8 (P<0.05).  
 가 ,  
 가 139±47.4 ml,<sup>20</sup>  
 가 305±111.8 ml (spastic pelvic floor syndrome),<sup>21</sup> rectoanal  
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 <0.01). ,  
 가 515±192.6 ml, ,  
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