



가

26 ( : = 5:21,  
48 )

22 ,

13 (50.0%) , 13 가 8  
(30.8%), 2 (7.7%), 2 (7.7%),  
1 (3.8%) , 6 (23.1%) ,  
20 가 8 (30.7%), 4 (15.4%),  
3 (11.5%), 3 (11.5%),  
1 (3.8%), 1 (3.8%) ,  
11 4 (36.4%) , 7 가 4 (36.4%),  
1 (9.1%), 1 (9.1%),  
1 (9.1%) .

가 가  
63.6%가 가

5 - 20%가 (spastic pelvic floor syndrome),  
가 (4, 5).

가 (functional constipation)  
가 (chronic idiopathic constipation)

(1, 2).

(1, 2).

3 가 26  
( : = 5:21, 59 )  
23 , 3 가 14 ,

1  
2

2005 11 23 2006 2 3

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가 12 , 1 - 185 26 13 (50.0%)  
 48 , 22 , 13  
 8 , 가 8 (30.8%), 2  
 (manometry) (7.7%), 2 (7.7%),  
 (polye - 1 (3.8%)  
 thylene) 24 가 (Sitzmarks, 26 6 (23.1%)  
 Konsyl Pharm Inc, Texas, U.S.A.) 1 7 , 20 가 8 (30.7%),  
 , 4 (15.4%),  
 -S 3 (11.5%), 3 (11.5%),  
 3 , 1 (3.8%),  
 Wald (3) 1 (3.8%)  
 , 3 , 5 13  
 , 3 2 (15.4%) , 11 가  
 4 (28.6%), 2 (14.3%)  
 (Fig. 1), 2 (14.3%) (Fig. 2),  
 5 , 1 (7.1%),  
 (slow transit), 가 1 (7.1%), 1 (7.1%)  
 (colonic inertia), . 11  
 (hindgut dysfunction), 4 (36.4%) , 7  
 (pelvic outlet 가 4 (36.4%) (Fig. 3), 1 (9.1%)  
 (Fig. 4), 1 (9.1%),  
 Wald (3)가 1 (9.1%)  
 가 6  
 2 (33.3%) , 가 2 (33.3%),  
 가 가 1 (16.7%),  
 7-8 가 1 (16.7%)  
 , 22 (84.6%)  
 가 2-3 7 , 8 , 7  
 7-8 가 , 8 5 가  
 2-3 -S 8 (30.8%)  
 7-8 , 7  
 , 26  
 가 10 (38.5%)  
 8 (30.8%)  
 (caulking gun) 가  
 X- 2가  
 (1, 2). Karasick (6)  
 가 가  
 -S  
 (distal) 가  
 -S  
 13 11 (84.6%)  
 11 가 2 , 8

Table 1

**Table 1.** Summary of Patients 'Data

Pt	Sex Colonoscopy	Age	Symptoms Manometry	Ba-enema	CTT	Defecography
1	F hemorrhoid	38	constipation negative	-	POO	rectocele
2	F normal	75	constipation positive	-	normal	PDS, rectal intu
3	F -	78	defecation difficulty positive	normal	colonic inertia	rectocele, PDS
4	F normal	58	constipation positive	normal	normal	rectocele, PDS
5	M colon polyp	70	defecation difficulty negative	-	POO	SPFS
6	F normal	37	constipation positive	-	normal	rectocele, SPFS
7	F hemorrhoid	52	constipation negative	-	normal	rectocele
8	F colon polyp	49	constipation negative	-	normal	rectocele
9	F -	72	constipation negative	normal	normal	PDS, rectal intu
10	M hemorrhoid	71	constipation positive	-	normal	normal
11	M colon polyp	62	constipation positive	normal	normal	normal
12	F hemorrhoid	82	constipation negative	-	POO	rectocele
13	M normal	75	constipation negative	-	POO	normal
14	F -	68	constipation negative	-	normal	SPFS
15	F hemorrhoid	60	defecation difficulty negative	-	normal	rectal intu
16	F colon polyp	47	constipation negative	colon polyp	POO, colonic inertia	normal
17	F hemorrhoid	42	constipation positive	normal	normal	rectocele
18	F normal	57	constipation negative	-	POO, colonic inertia	rectocele, PDS
19	F normal	38	constipation negative	-	POO, hindgut dysfunction	normal
20	F hemorrhoid	54	constipation positive	normal	POO	rectocele
21	M colon polyp	63	constipation negative	-	POO	PDS, rectal intu
22	F normal	49	constipation positive	-	normal	rectocele, PDS
23	F -	55	constipation negative	-	normal	rectocele
24	F colon polyp	62	constipation negative	-	POO	rectocele
25	F colon polyp	59	constipation positive	-	colonic inertia	SPFS
26	F hemorrhoid	63	constipation negative	normal	POO	normal

CTT: colon transit time POO: pelvic outlet obstruction PDS: perineal descent syndrome intu: intussusception  
 SPFS: spastic pelvic floor syndrome positive / negative in manometry: abnormally increased / normal anal sphincter tone

가 1  
Nyam (7)

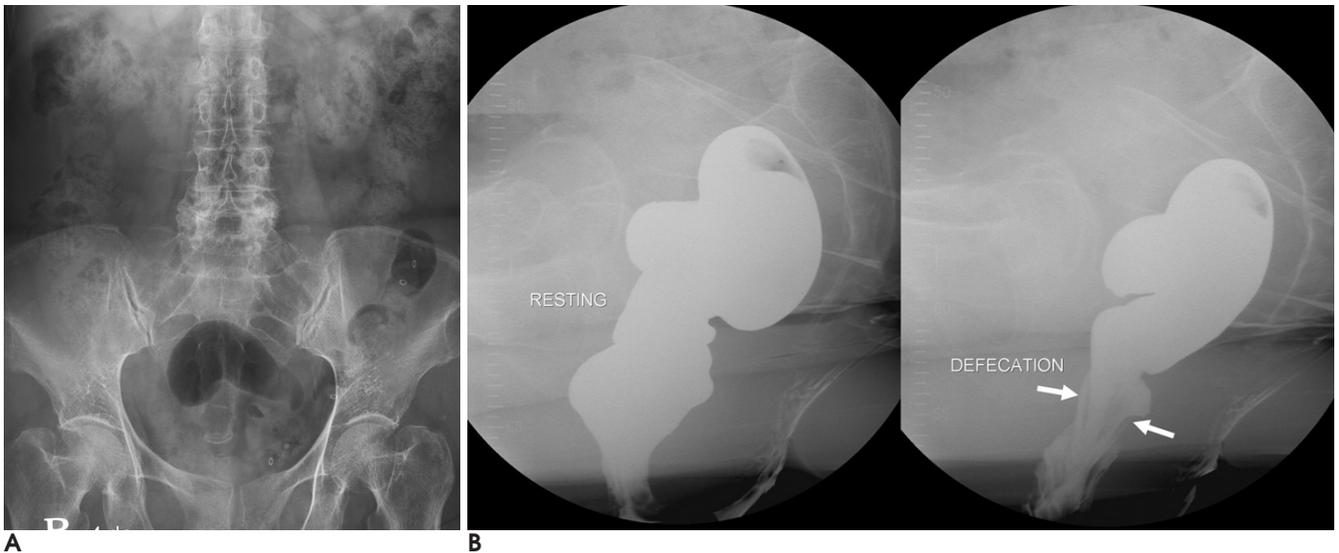
60%가

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(feedback)

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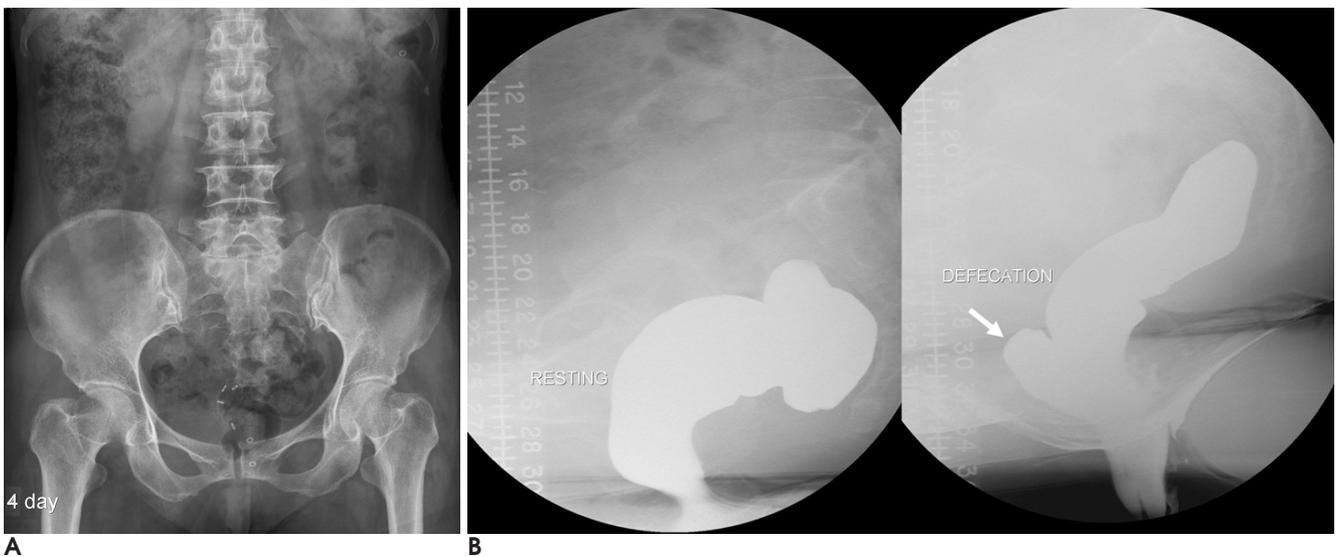
가



**Fig. 1.** A 75-year-old woman with rectal intussusception and mild degree of perineal descent syndrome on defecography, and normal transit time on colonic transit time (CTT).

**A.** On fourth day film of CTT, only 4 radiopaque rings are noted in the rectosigmoid colon, suggesting normal transit time.

**B.** On defecography, mild degree of downward displacement of anorectal junction and rectal intussusception (arrows) are visualized. Note the unusually wide anorectal angle during resting phase.



**Fig. 2.** A 58-year-old woman with perineal descent syndrome and small rectocele on defecography, and normal transit time on CTT.

**A.** On fourth day film of CTT, 6 radiopaque rings in the pelvic cavity and 1 ring in the left colon are demonstrated, suggesting normal transit time.

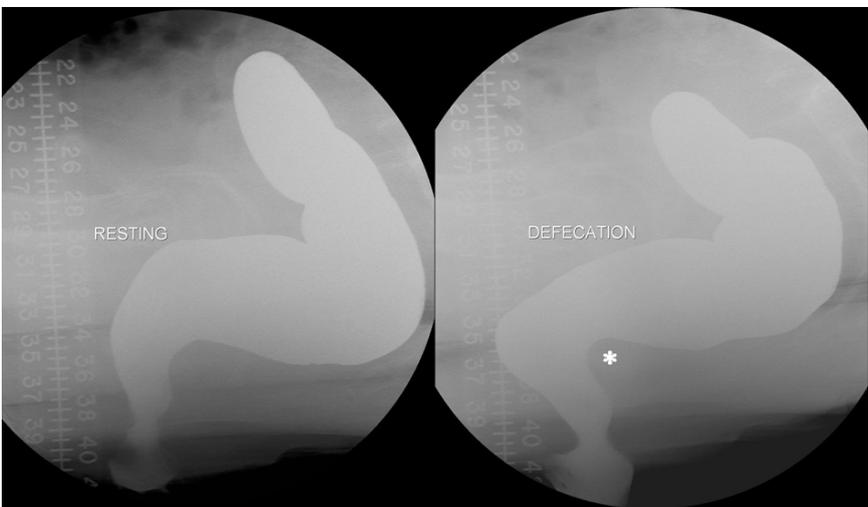
**B.** On defecography, severe degree of downward displacement of the anorectal junction and small size of anterior rectocele (arrow) are noted.



**A**  
**Fig. 3.** A 38-year-old woman with pelvic outlet obstruction on CTT and large rectocele on defecography.  
**A.** On fourth and seventh day films of CTT, many radiopaque rings are remaining in the rectosigmoid colon area without interval change, suggesting pelvic outlet obstruction.  
**B.** On defecography, about 4 cm size anterior rectocele is noted during straining phase.



**Fig. 4.** A 68-year-old woman with pelvic outlet obstruction on CTT and spastic pelvic floor syndrome on defecography.  
**A.** On fourth and seventh day films of CTT, many radiopaque rings are remaining in the rectosigmoid colon area without interval change, suggesting pelvic outlet obstruction.  
**B.** On defecography, the contour of anorectum is grossly normal with normal anorectal angle during resting phase. However, anorectal angle ( \* ) is abnormally decreased during defecation phase, suggesting spastic pelvic floor.



**B**



## Usefulness of Colon Transit Time and Defecography in Patients with Chronic Constipation<sup>1</sup>

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**Purpose:** We wanted to evaluate whether both the colonic transit time (CTT) and defecography are necessary for diagnosing constipated patients, and we also wanted to assess the defecographic findings of patients with outlet obstruction on CTT.

**Materials and Methods:** Over the recent 3 years, 26 patients (21 women and 5 men, mean age: 59 years) underwent both CTT and defecography because of their chronic constipation or defecation difficulty. The mean interval between the 2 studies was 48 days. Colonoscopy, barium enema and manometry were performed in 22, 8 and all the patients, respectively.

**Results:** On CTT, 13 patients (50.0%) were normal and 13 patients (50.0%) were abnormal; the abnormal results were composed of outlet obstruction ( $n=8$ , 30.8%), outlet obstruction and colon inertia ( $n=2$ , 7.7%), colon inertia ( $n=2$ , 7.7%), and outlet obstruction and hindgut dysfunction ( $n=1$ , 3.8%). On defecography, 6 patients (23.1%) were normal and 20 patients (76.9%) were abnormal; the results were composed of rectocele ( $n=8$ , 30.7%), rectocele and perineal descent syndrome (PDS;  $n=4$ , 15.4%), PDS and rectal intussusception ( $n=3$ , 11.5%), spastic pelvic floor syndrome (SPFS;  $n=3$ , 11.5%), rectocele and SPFS ( $n=1$ , 3.8%), and rectal intussusception ( $n=1$ , 3.8%). Of the 11 patients with outlet obstruction on CTT, rectocele ( $n=4$ , 36.4%), SPFS ( $n=1$ , 9.1%), rectocele and PDS ( $n=1$ , 9.1%), and PDS and rectal intussusception ( $n=1$ , 9.1%) were demonstrated on defecography, except for the 4 normal cases.

**Conclusion:** Both CTT and defecography were necessary for diagnosing the patients with chronic constipation in compensation, and 63.6% of the patients with pelvic outlet obstruction showed an abnormal pelvic defecation function.

**Index words :** Colon  
Defecography  
Colonoscopy

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