

# Anal Canal Electrosensitivity Test on Child Patients after Total Colectomy, Mucosal Proctectomy and Ileal J Pouch-Anal-Anastomosis

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## Abstract

**Objectives:** To clarify the role of anal canal sensitivity in soiling (minor incontinence; the seepage of mucus and/or stool during nighttime and/or daytime) in child patients after ileal J pouch-anal-anastomosis (IPAA), the author studied the sensory function of the anal canal. Twelve patients one year after IPAA for ulcerative colitis were studied (8 males, 4 females; aged 10.5 to 14.5 years, average 13.0 years).

**Setting:** Nihon University Hospital at Itabashi/Department of Pediatric Surgery

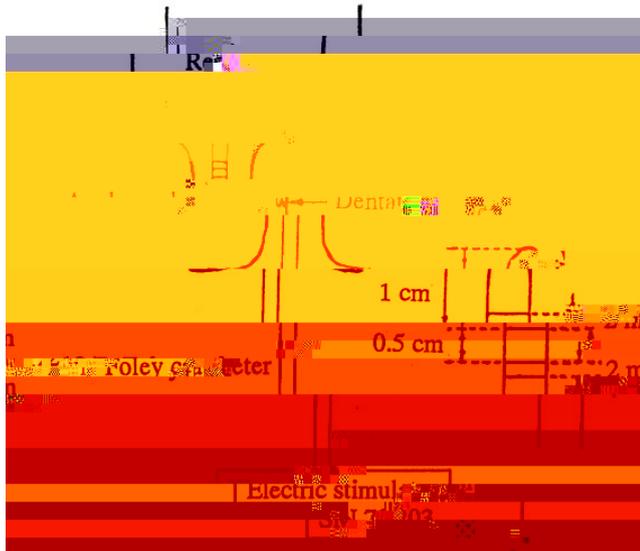
**Methods:** Four patients showed soiling (group A) and 8 patients showed continence (group B). Group C serving as controls consisted of 12 children with normal defecation (9 males, 3 females; aged 6 to 15 years, average 11.7 years). The anal canal sensitivity thresholds (ACST) on the oral side of the dentate line (ODL) and the anal side of

study. The author thus studied a total of twelve children with UC (8 males and 4 females aged 10.5 to 14.5 with a mean age of 13.0 years) who had undergone IPAA. Four patients showed soiling 1 year after IPAA (the seepage of mucus and/or stool during nighttime and/or daytime, every day, with a pad needed to protect against soiling) (group A). Eight patients showed continence 1 year after IPAA (group B). Child patients with good control of bowel function from our clinics acted as controls (group C). Group C consisted of 12 subjects (9 males and 3 females aged 6 to 15 years old with a mean age of 11.7 years). All

patients after IPAA in this study had an uneventful postoperative course without severe complications (Table 1). All patients were tolerating a general diet at the time of the study, and all medications were withheld for 48 hours prior to this study. No patients had other diseases (without surgical histories, psychiatric diseases, metabolic diseases, endocrinological disorders, functional digestive tract impairments and organic digestive tract diseases) before undergoing the IPAA.

|       | <b>Group A</b> | <b>Group B</b> | <b>Total</b> |
|-------|----------------|----------------|--------------|
| Cases | 4              | 8              |              |

Measurements of the ACST were performed at 9:00 a.m. with the subjects in the left lateral decubitus position with the knees drawn up.



**Figure 1:** Measurement of the anal canal electrostimulation. A 12-Fr Foley catheter equipped with a handmade stimulus electrode (2 platinum wires of 2 mm width located 1 and 1.5 cm from the tip of the Foley catheter) was inserted per anus. Responses were measured on the oral side of the dentate line and on the anal side of it.

whether the integrity of sensory function in the anal canal with or

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