

We found USWs were rare in Hirschsprung's disease, and there were significant differences in the anal pressure and frequency of anal slow waves between the patients with USWs and those with Hirschsprung's disease. Our data on the low frequency of anal slow waves in Hirschsprung's disease were compatible with the data reported by Faverdin et al¹². Another clinical entity to be discussed is "ultrashort Hirschsprung's disease" or internal anal sphincter achalasia¹³. Patients with ultrashort Hirschsprung's disease have ganglion cells on ordinal rectal suction biopsy but lack RAR, and no transition zone is demonstrated on barium enema. There still remain controversies regarding the criteria for ultrashort Hirschsprung's disease^{14,15}; Lynn's rectal myectomy¹⁶ is a standard treatment. As presented by case 1 in our series, gastrointestinal symptoms accompanied by USWs and high anal pressure mimic Hirschsprung's disease. In the presence of high anal pressure and anal USWs, it would be beneficial for the patient to be re-evaluated, even if definite RARs were not demonstrated at the first evaluation. There is no established treatment for chronically constipated children with USWs and high anal pressure. Ohashi et al⁷ treated chronically constipated children with megarectum and high anal pressure using Lynn's operation with favorable results, though there was no description of USWs. In adult cases, lateral internal sphincterotomy and forceful anal dilatation are effective as surgical treatments for anal hypertonia associated with anal fissure or hemorrhoids^{3,4,17}. As a possible medical treatment for anal hypertonia, topical use of nitrates was proposed^{17,18}. In recent papers, topical nitric oxide was utilized in the treatment after pull through operations for Hirschsprung's disease to improve obstructive symptoms^{19,20}. In our series, three out of the four patients responded well to conventional medical managements such as laxatives, suppository and glycerin enema. Therefore, we have no experience applying nitric oxide to constipated children with USWs and high anal pressure. When high anal pressure in our series was present, topical nitric oxide might have been a rational choice of treatment for these cases.

Though USWs are observed in normal healthy persons, we found a correlation between USWs and adult megacolon in our recent study (unpublished data). Bouchoucha et al.²¹ observed an increase of USWs during maintained rectal distention in normal healthy persons and patients with irritable bowel syndrome. It is yet to be investigated whether USWs are actively playing a causal role in megacolon or passively generated by colonic distention. To understand the physiopathology and rational treatment of chronic constipation in children with USWs, more information is required. The presence of USWs on anoctal manometry may prompt a search for hemorrhoids or an anal fissure in children with intractable constipation. In infants, we would like to emphasize the

fact that two out of the three patients who lacked RAR in the first evaluation were positive for USWs. UWSs may shed light on an un-clarified clinical entity mimicking Hirschsprung's disease. When evaluating chronic constipation in infants and children, attention should be paid not only to RAR but also to USWs.

Acknowledgement

This research was funded through a Health Labour Science Grant for Comprehensive Research on Aging and Health (H16-Chozyu-026) supported by the Ministry of Health, Labour and Welfare, Japan.

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Figure legends

Figure 1: Anal resting pressure

The anal resting pressure of the patients with USWs was significantly higher than that in other groups. The top, bottom and line through the middle of the box correspond to the 75th percentile, 25th percentile and 50th percentile, respectively. The whiskers extend from the 10th percentile and to the 90th percentile. (**: $p < 0.01$)

Figure 2: Anal slow wave frequency

The anal slow wave frequency of the patients with USWs was significantly higher than that of controls and patients with Hirschsprung's disease. (*: $p = 0.036$, **: $p < 0.01$)

Figure 3: Case 1

The abdominal X-ray films showed marked intestinal gas and dilated colon (a: supine position, A-P view, b: upright-lateral view). The resting anal and rectal pressure profile showed USWs of the anal canal. Note the absence of rectal contractions synchronous with USWs and the presence of slow waves at the nadir of USWs.

Figure 4: Case 2

The abdominal X-ray films showed marked intestinal gas (a). Suction biopsy of the rectum revealed ganglion cells (b: H-E staining, x400) and increased acetylcholinesterase activity (c: AchE staining, x40). USWs were seen in the manometric study (d).

Figure 5: Case 3

A part of the fecoflowmetric curve is presented.

Figure 6: Case 4

Anorectal pressure profile showed USWs (U). The first RAR (R1) was elicited at the beginning of rectal saline infusion (arrow head). After 200 ml of saline infusion, a series of rectal contractions (thin arrows) and RAR (U2-4) were elicited. A part of the fecoflowmetric curve is presented (b).

	Control	Chronic constipation	Hirschsprung's disease*	USWs
n	32	66	16	4
Age (years)	4.3±4.3	3.0±3.8	0.3±0.5	2.8±3.7
Male/Female	21/11	39/27	11/5	2/2

Table 1

*No cases had undergone radical surgery and all were without history of any surgical treatment of the anorectal region.

Year	Author	Subjects	(n)	Prevalence rate USWs (%)
1968	Wankling WJ et al. ¹⁾	Healthy volunteer	(20)	70.0
1987	Roe Am et al. ²⁾	Hemorrhoids	(40)	40.0
1992	Schouten WR et al. ³⁾	Healthy volunteer	(20)	10.0
		Hemorrhoids	(58)	50.0
1994	Farouk R et al. ⁴⁾	Healthy volunteer	(33)	6.1
		Hemorrhoids	(10)	20.0
		Anal fissure	(30)	86.7
1997	Echardt VF et al. ⁶⁾	Healthy volunteer	(25)	0.0
		Hemorrhoids	(25)	8.0
		Anal fissure	(25)	56.0

Table 2 Prevalence rate of USWs

Fig.1

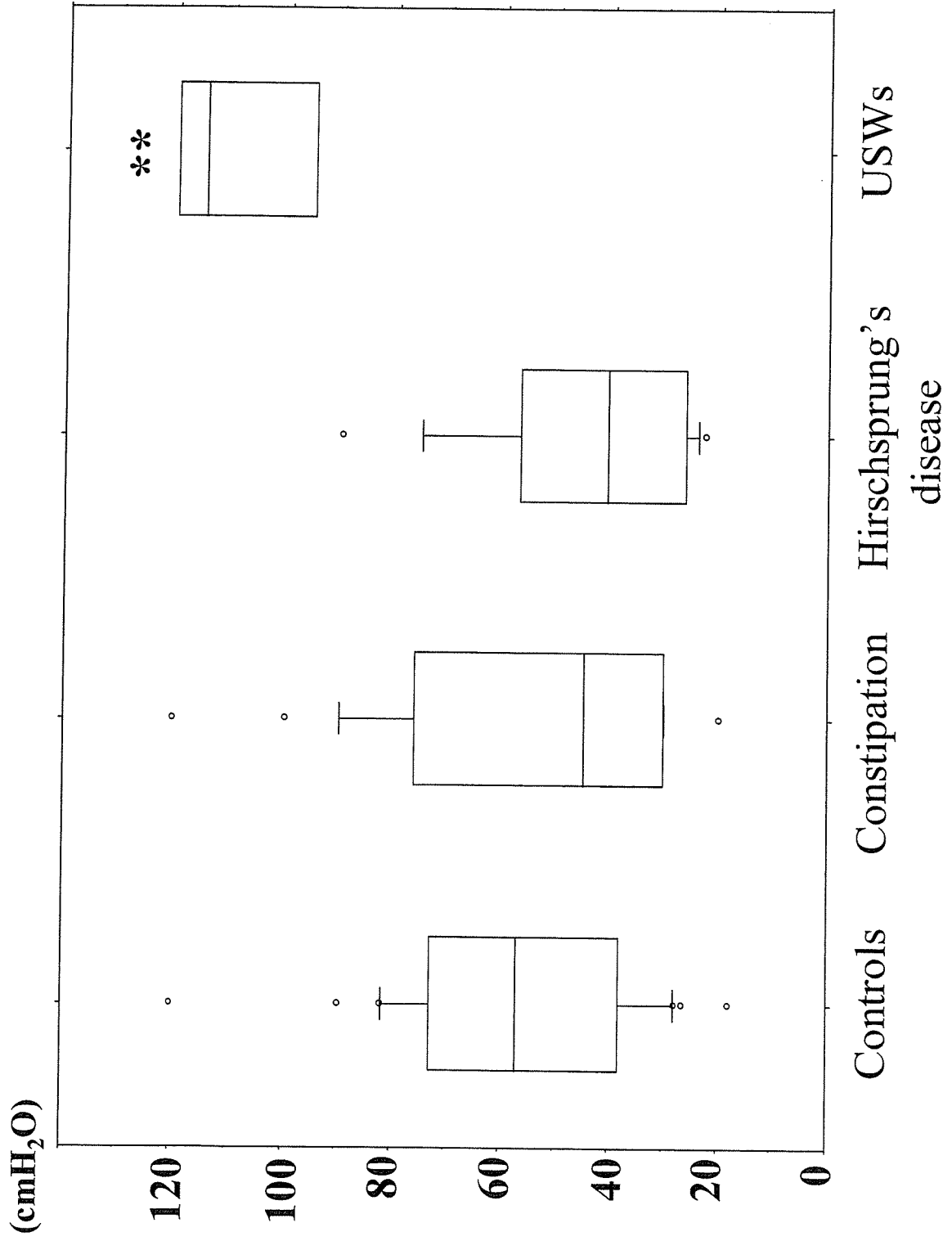


Fig.2

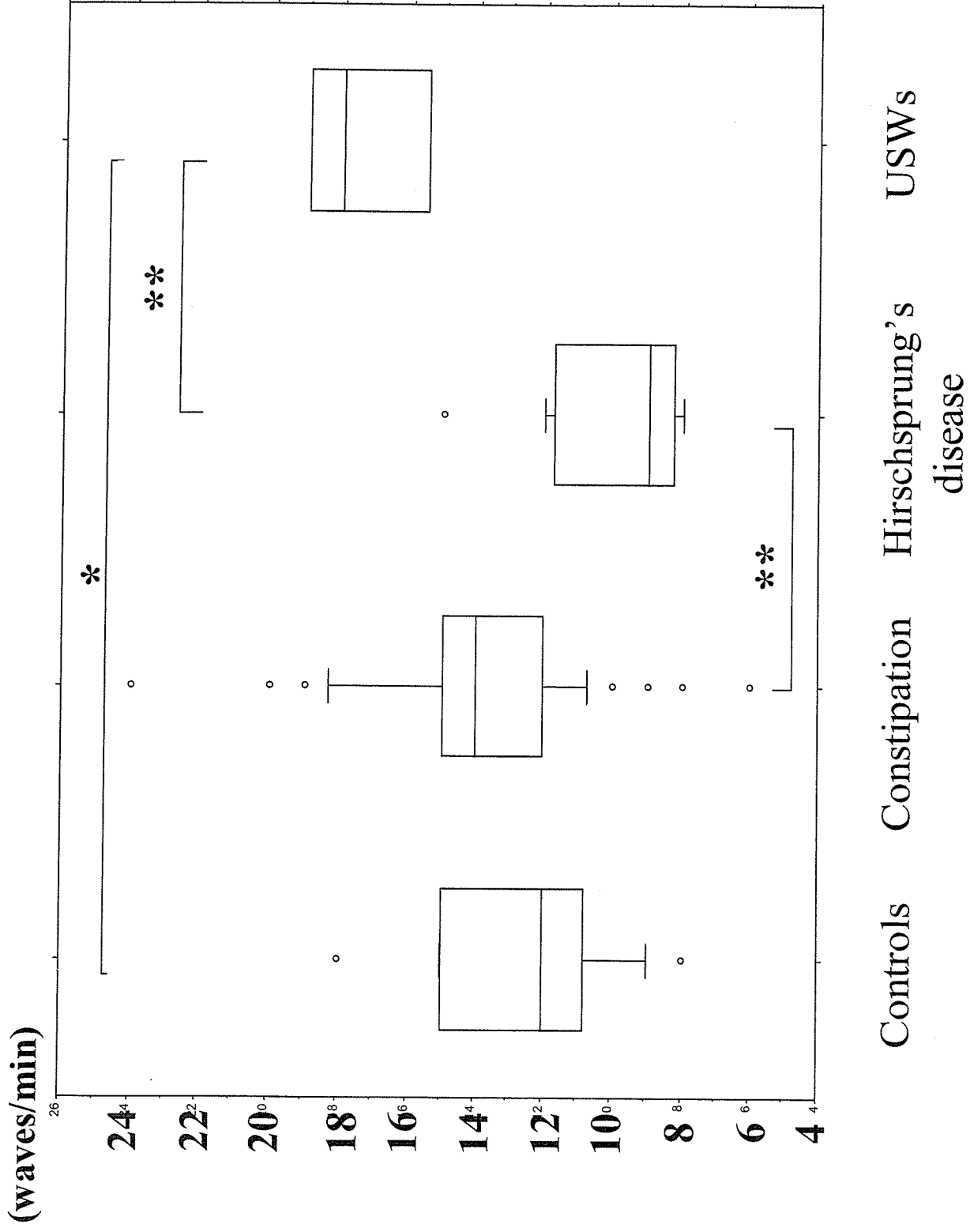
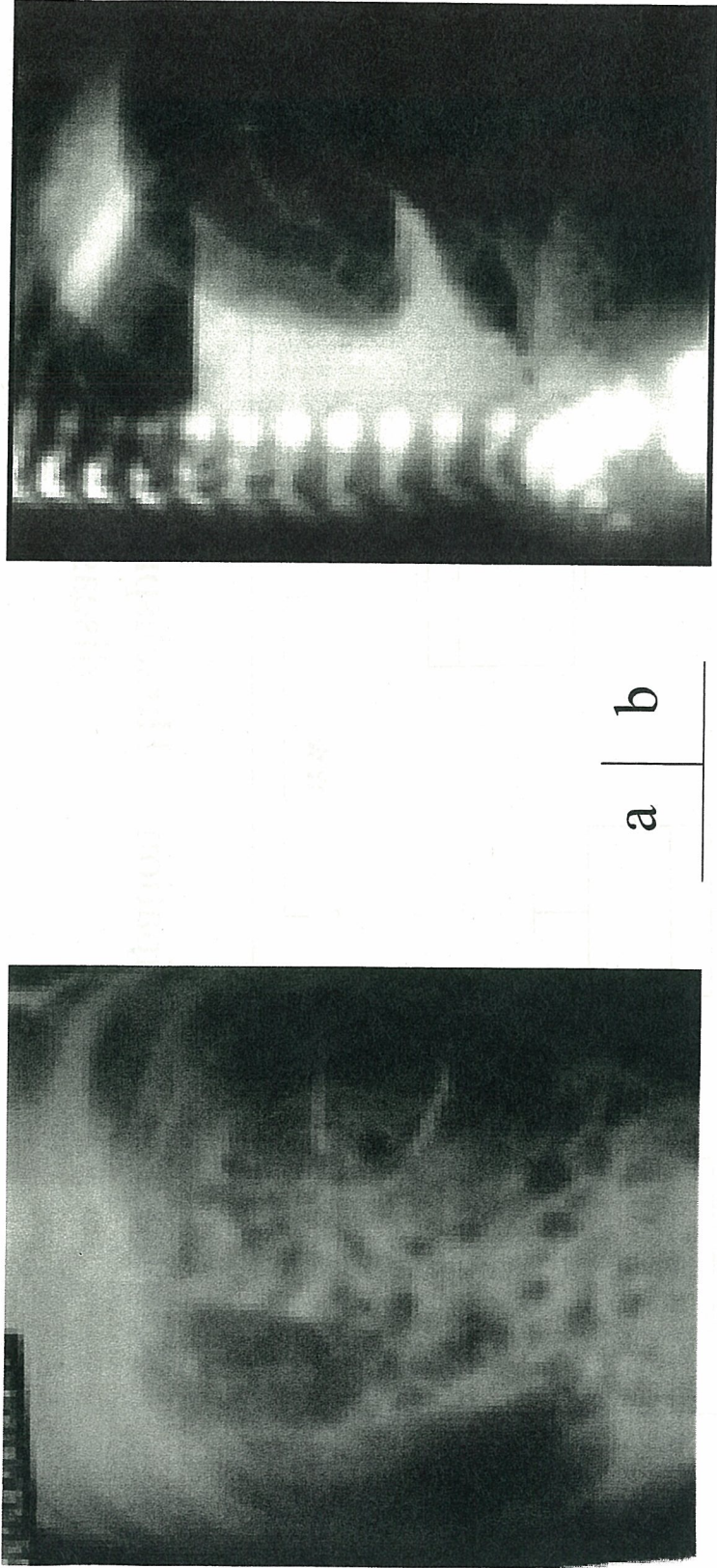


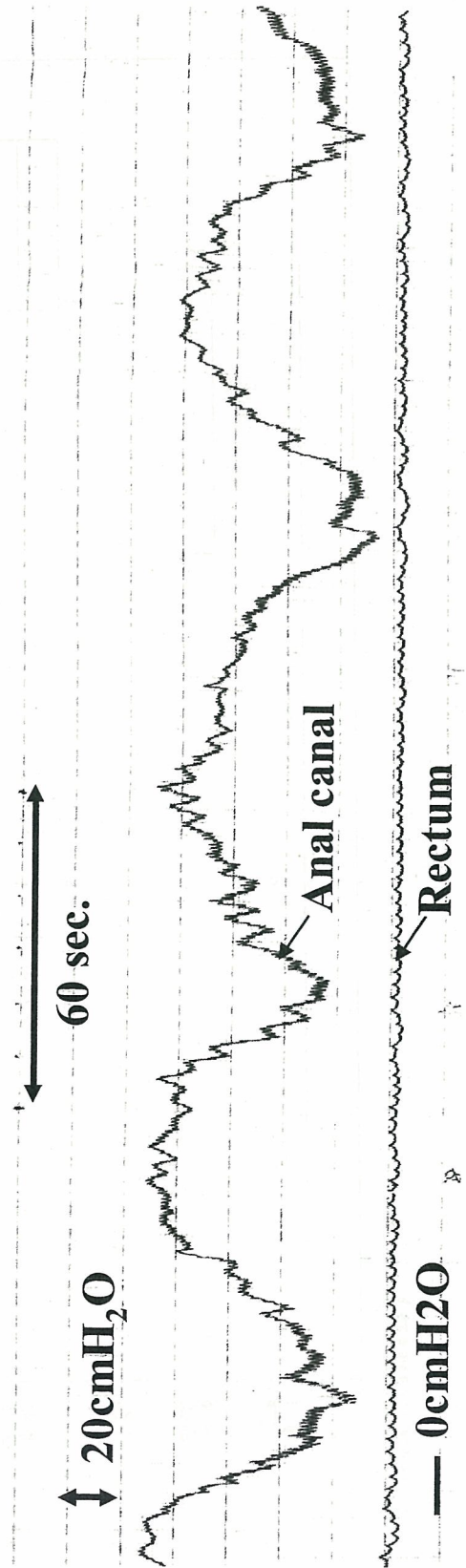
Fig.3 Case

1



a | b

c



↑ ↓ 20cmH₂O

60 sec.

Anal canal

Rectum

— 0cmH₂O

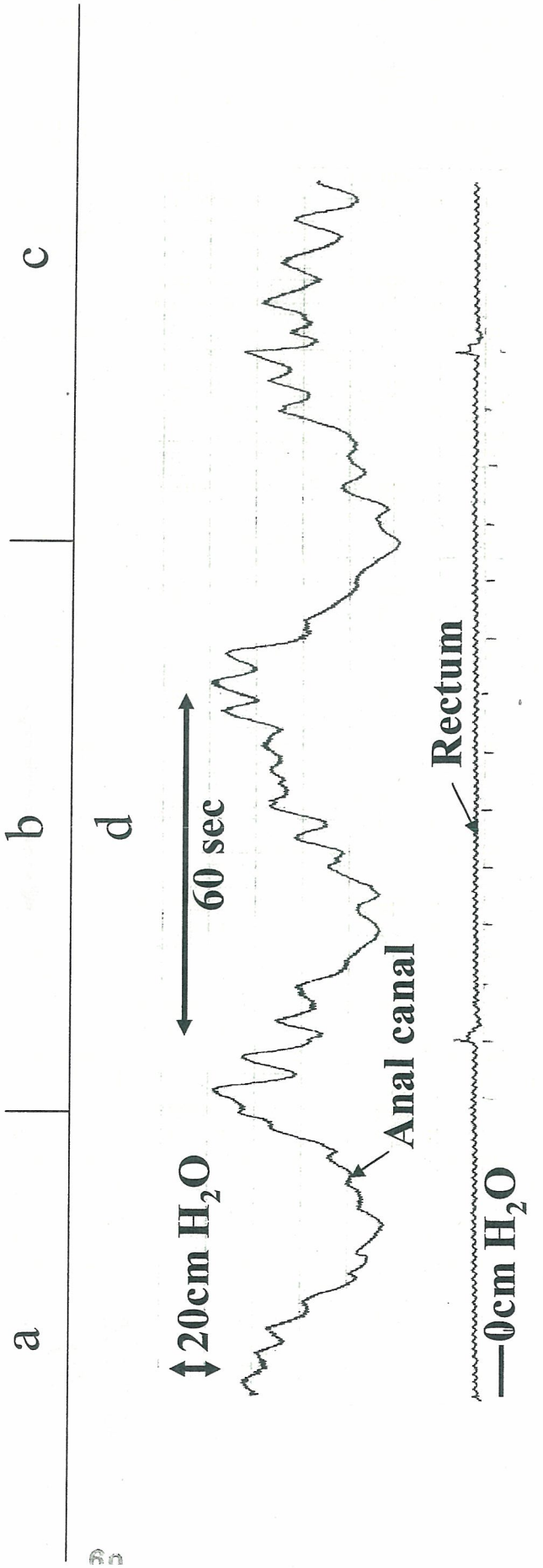
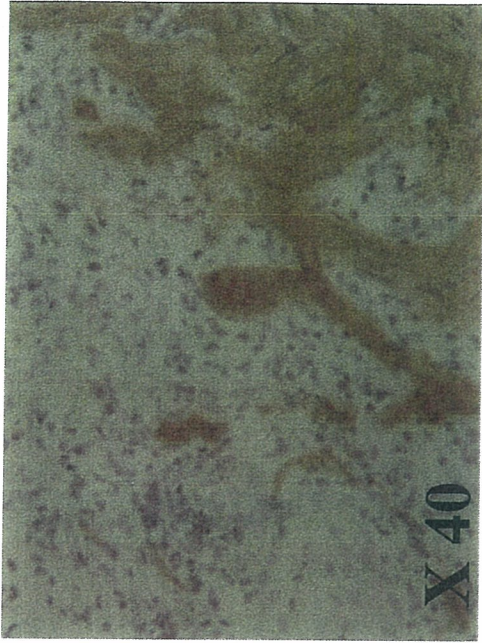
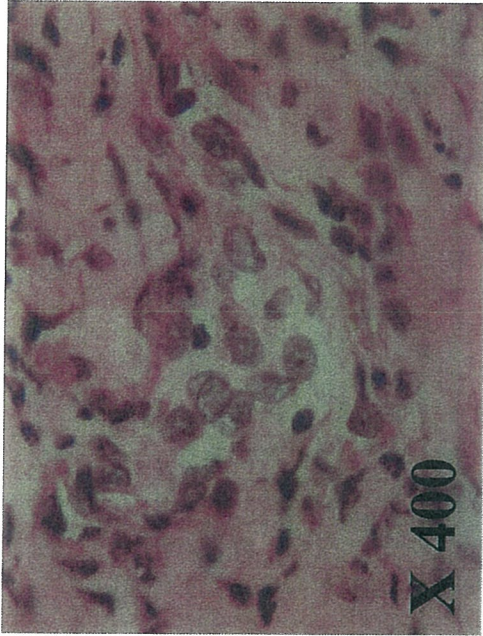
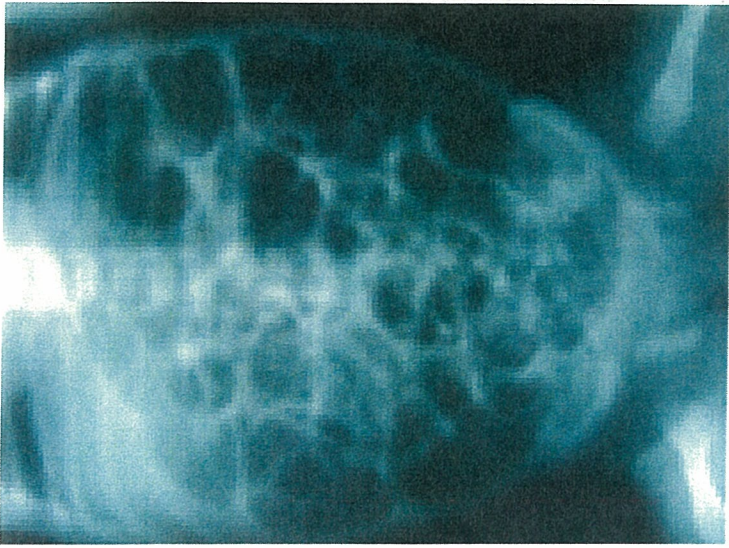


Fig.5 Case 3

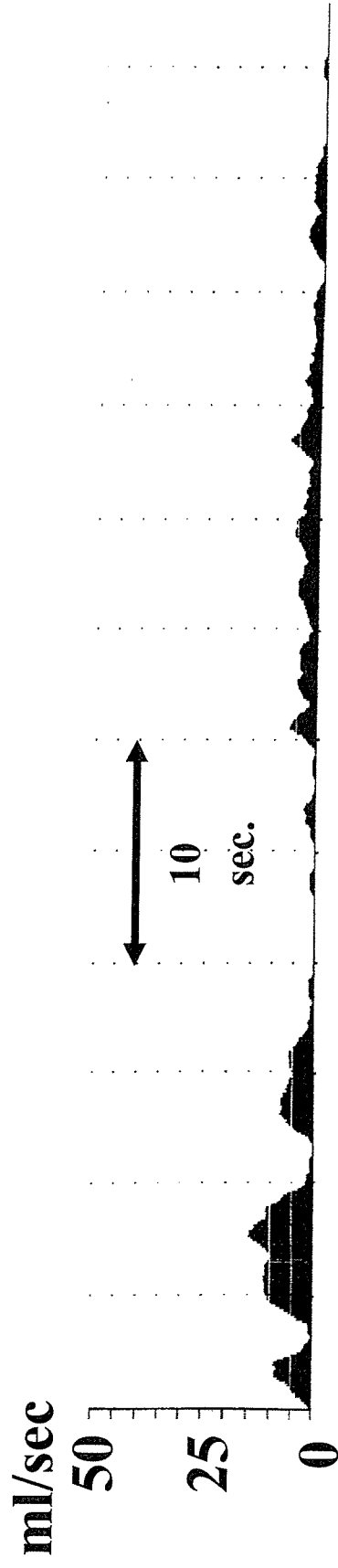
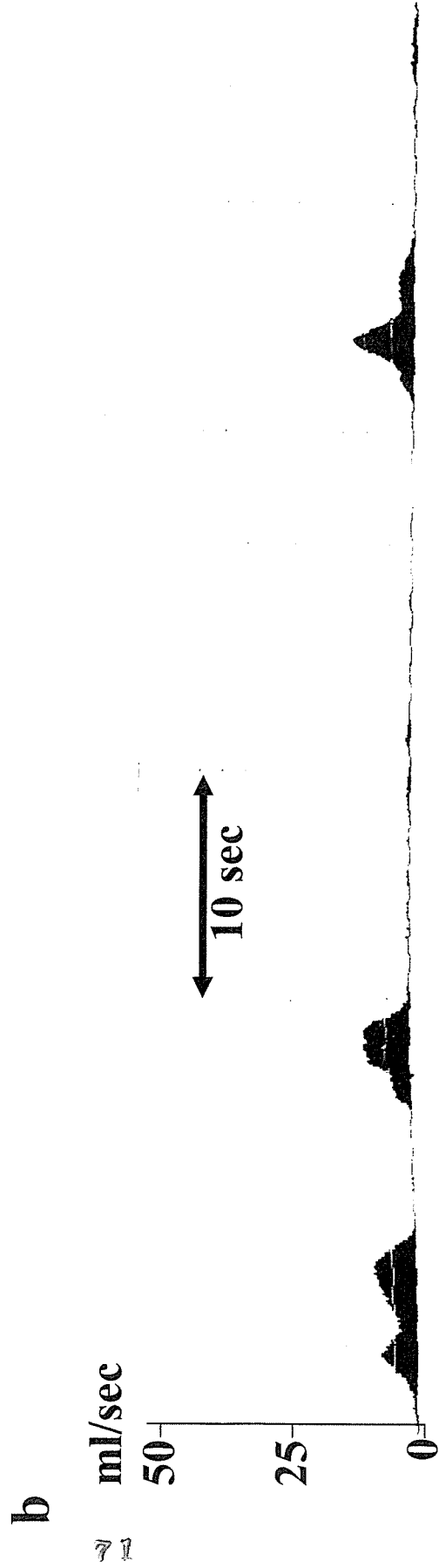
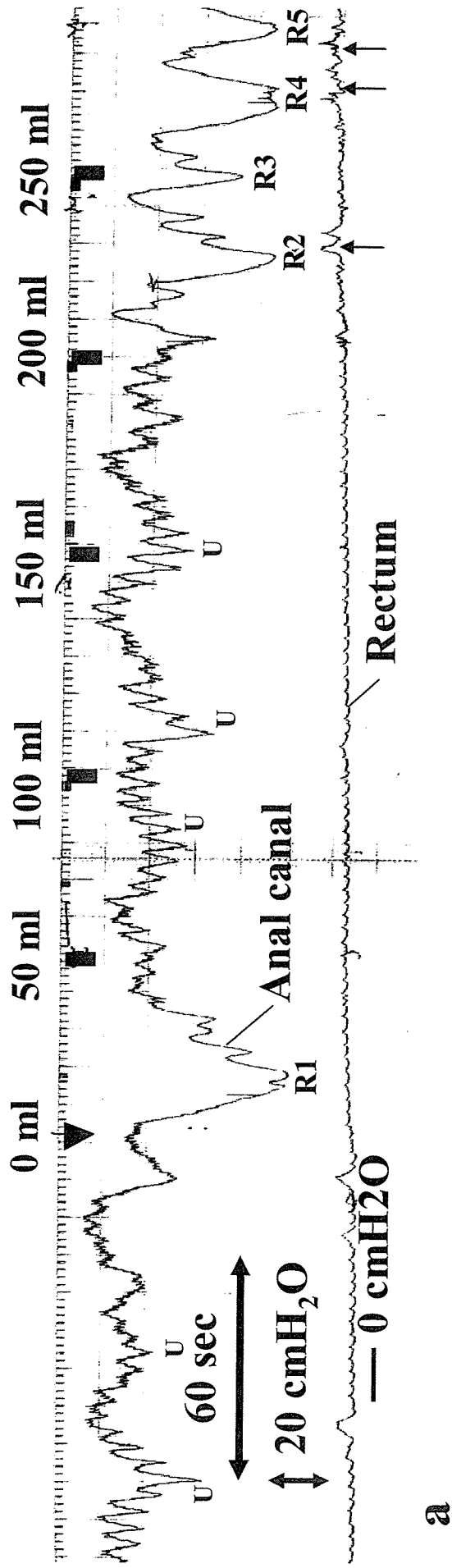


Fig.6 Case 4



Investigation into the actual condition of the bowel management in elderly people in a rural area of Japan

- Emerging serious social problems in an aging society -

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Introduction

As the aging population is increasing rapidly in Japan, nursing care for aged people is a growing concern in the society. Proper bowel management and care has a key importance to the wellbeing of disabled elderly people. Elderly persons who experience loss of bowel control are depressed and fearful of losing their dignity. The bowel care for the elderly is a hard work and depends largely on care-givers in their families or care workers in the long-term care facilities. Thus, the quality of life and the dignity of disabled elderly people are deeply influenced by the quality of bowel care supplied by care-givers and care workers; however, actual condition of the bowel management in elderly people in highly aged rural society is yet to be investigated. The purpose of this study was to elucidate the actual state and problems of bowel management in the disabled elderly people for improving their quality of life and dignity.

Materials and Methods

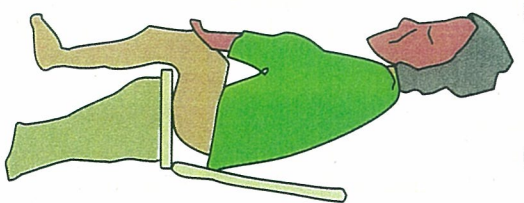
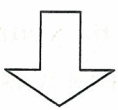
This study was carried out in Katagami city and neighboring areas located in a rural area of Akita prefecture in Japan. The percentage of people aged more than 65 years in Akita prefecture has already exceeded 28% in 2006. Questionnaire was mailed to 325 registered care workers in the area.

— — — — in preparation

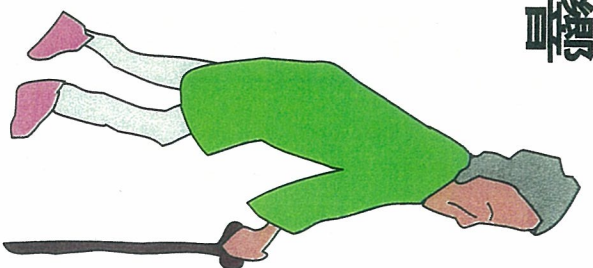
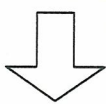
排便障害は日常生活の質や尊厳に与える影響は大きく、介護の負担になる



全面的要介助
低い生活の質、悲観的 attitude

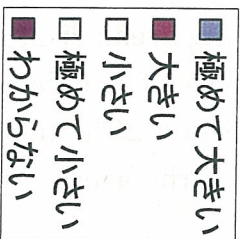
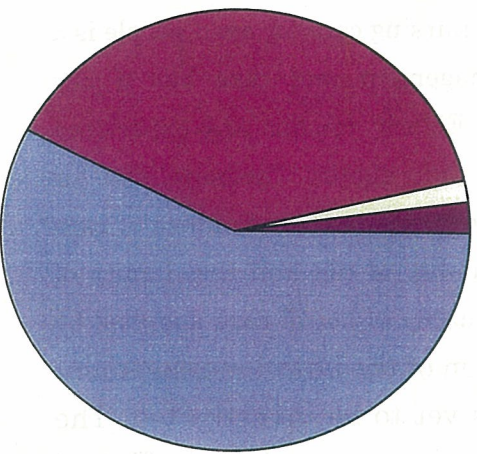


部分的介助
自立への意欲

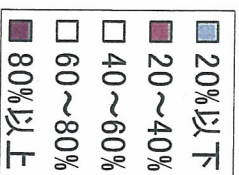
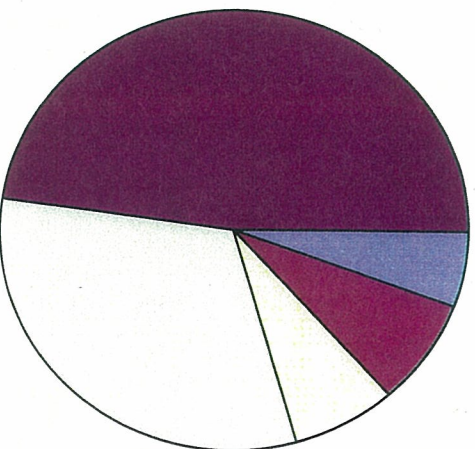


自立
社会生活への自信

排便コントロールが生活の質に及ぼす影響(図3)

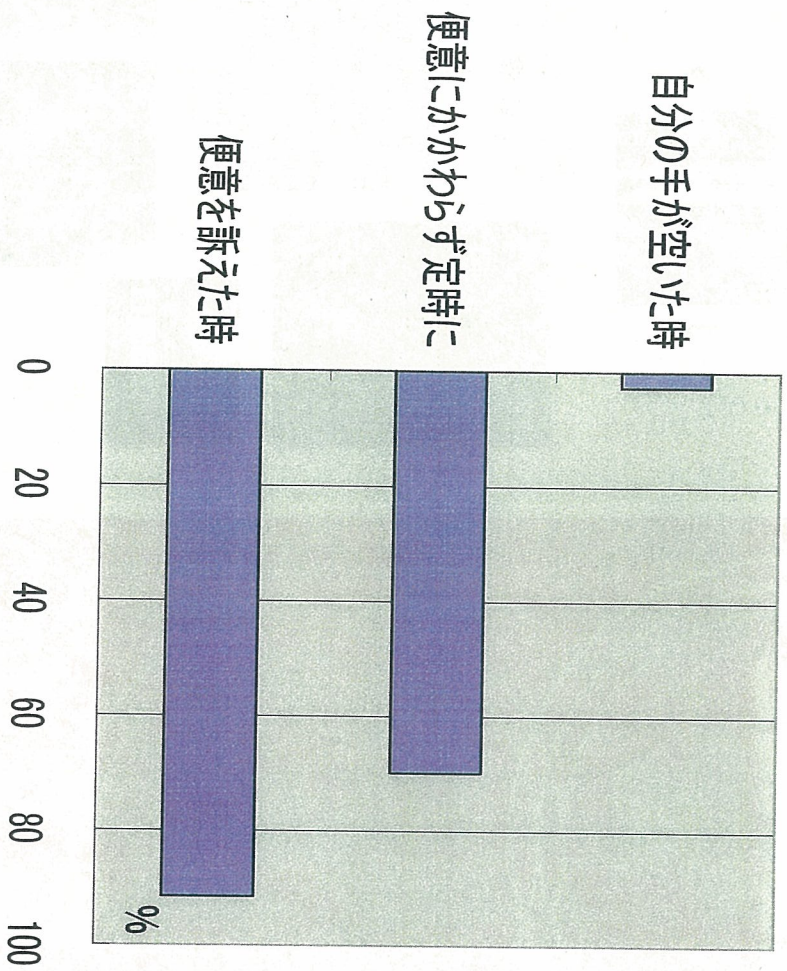


排泄ケアの必要な老人の占める割合(図2)

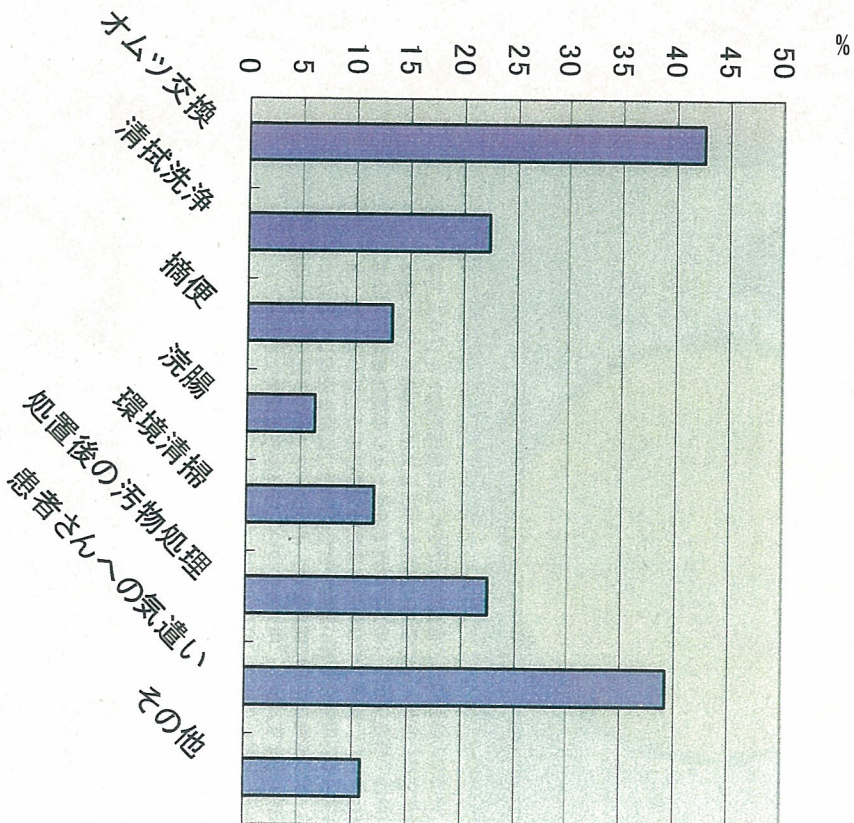


排便介護は肉体的にも精神的にも重労働

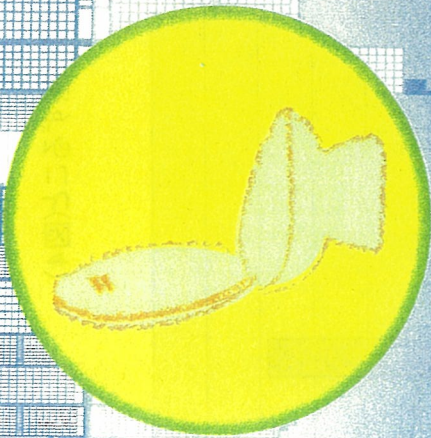
排便介護のタイミングはいつですか？(図5)



排泄介護で負担に感ずること(図4)



あきた街角 トイレマップ



秋田市の商業地区と官公庁などを中心に車椅子用トイレや人工を装着された方のための設備を備えたオストメイト対応トイレ、種々の原因で排泄に困難な方が利用できるトイレの情報を写真入り掲載しました。掲載した以外にも多数の施設があると思いますが、市民生活で利用頻度の高い施設や官公庁関係の施設を選択してあります。より広範な情報に関しては、インターネットの下記サイトで検索ができます。また、ホテルについては外来者も使用できるトイレのみを記載しました。バリアフリー対応の宿泊設備に関しては各ホテルにお問い合わせください。なお、ここに掲載した情報は2006年暮れの状況を基に作成されており、

<http://www2.prof.akita.jp/bf-map/>
(あきたバリアフリーマップ)

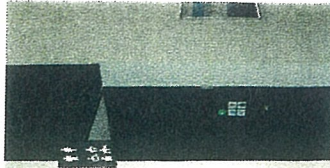
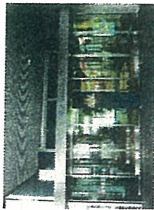
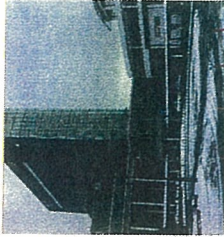
<http://www.akita-bf-town.net/>
(秋田県バリアフリー総合サイトバリアフリータウン)

秋田駅周辺

秋田の顔というべき街です。ホテル、商業施設が集まっています。バリアフリートイレは比較的新しい施設では対応していますが、古い建物ではなかなか苦しいようです。秋田日赤跡地の再開発でどのような街になるのか期待したいところです。ここに収載したものはコンフォートホテル、ホテルグランティア秋田には車椅子用トイレがあります。ホテルα1、フォーラス、木内には対応トイレはありません。ALSの車椅子用トイレはアクセスが悪くなっていきます。アルベと秋田県福祉相談センターには本格的オストメイト対応トイレが設置されています。

秋田駅東口 アルヴェ

エントランスを入れて真っ直ぐ進むと車椅子、オストメイト対応トイレに行ける。アトリオンの広場は午前9:00~午後10:00まで開いており、年中無休である。駅前の一角で唯一の本格的オストメイト対応トイレである。建物が新しく開放感がある。



秋田駅東口 アルヴェ 1F (オストメイトトイレ)

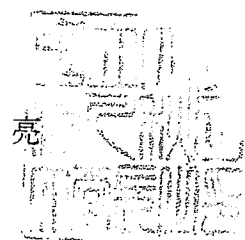
表示も分り易い(左上)。ストーマ洗浄用シャワーと流し(府上)や若竹大台とベニーホルダー(左下)、ベンチ(府下)など、現在の標準的装備を備えている。呼び出しあり。ウオッシュレット、便座クリーナーも装備。駅西口からは車椅子の場合は駅構内連絡通路(2F)に一度上がったから再び東口で1Fに折りなくてはならない。駅通路にも一応オストメイト用トイレが準備されているが、快適さではアルベが優れている。



平成 1 7 年 8 月 1 8 日

萱 場 広 之 殿

秋 田 大 学 長
三 浦



特許を受ける権利について（通知）

平成 1 7 年 8 月 5 日 付 け で 届 出 の あ り ま し た 発 明 に つ い て ， 下 記 の と お り 決 定 し ま し た の で お 知 ら せ し ま す 。

記

発明の名称	肛門機能障害者用自己洗腸療法補助具
決定事項	承継する（本学に帰属する）
決定年月日	平成 1 7 年 8 月 1 8 日