香港理遺學會 THE HONG KONG CONTINENCE SOCIETY

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主編：阮鳳姿
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顧問：梁萬福醫生　范強醫生

【編者的話】 阮鳳姿

本期會訊得到請來恩養教理會醫院外科部的林醫生為大家帶領介紹外科手術在大便失禁治療上的供獻，還請到一位已接受過回流腸加專科訓練的內地護士為大家介紹內地醫學護理的現狀，內地的醫療發展雖然大短期內起起來不到超高水平，香港內地合辦的專科短期培訓班也出現，可這些內地護士回港參加更是受益和這屆中英合辦的課程，今期會訊請到李偉娟姑娘(專科護士)為大家介紹其中一個短期課程發展的概念。

FAECAL INCONTINENCE IN ADULTS: A SURGICAL PERSPECTIVE

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INTRODUCTION

Faecal incontinence is a social taboo that patients find it difficult to tell even their doctors. As a result this is often a neglected problem. It is especially common among elderly people. By itself, it is not a disease. It is as much a symptom as abdominal pain, or per rectal bleeding. The first step towards treatment is awareness. The most appropriate treatment depends on the underlying disease. In many occasions, surgery helps.

CAUSES FOR FAECAL INCONTINENCE

The commonest cause for faecal incontinence in the young adult female is birth injury. Although third degree tears happen in less than 1% of all childbirth, lesser degrees of injury is obvious in 0.5-2.5%. It has been estimated that up to a third of all childbirth is associated with an unrecognized, minor sphincter injury, which might become manifest years later. People living in old age homes are frequently incontinent because of dementia or limited mobility. Spinal cord injury or diseases such as transverse myelitis make the patient unaware of faecal soiling. Damage to the sacral nerve roots or the Pudental nerve weakens voluntary contraction of the external sphincters. A fistula -in-ano is an abnormal communication between the perianal skin and the anorectum. If the internal opening lies in the rectum, faecal soiling occurs. Faecal incontinence can also occur with a normal sphincter. This happens when it is overwhelmed by excessive diarrhoea. The condition can only be worse if the rectum becomes stiffer or shrinks after irradiation or surgical resection. Rectal prolapse keeps the sphincter open and soiling of mucus and faeces is very common. A sphincter at fault is only one suspect among a multitude of possibilities.

STRUCTURAL DISRUPTION OF THE ANAL SPHINCTER

The anal sphincter can be damaged during the course of childbirth, impalement injury or surgical trauma. Childbirth injury usually tears apart the sphincter in the front. When a patient accidentally falls on to an erect pole, the damage can easily involve the anal sphincter, the anal canal, the rectum and even through and through into the vagina. After a fistulotomy or lateral sphincterotomy, the break naturally lies where the surgeon laid his scalpel.

With a structural defect in the sphincter, surgical repair is often successful. In childbirth injury, the tear is from the front. The external sphincter is always damaged first. The internal sphincter is often preserved. Anterior overlapping sphincter repair is the established treatment method. The success rate is generally above 70% (Table 1). In terms of the timing of repair, delayed repair has a higher success rate than immediate repair. In spite of an impressive early success, anterior overlapping sphincter repair seems to deteriorate with time (Table 2). The Pudendal nerves are prone to stretch injury during childbirth. If the Pudendal nerves are also damaged, the

functional result after sphincter repair is less successful.

Sphincter repair after non-obstetric injury appears to be less successful. In the rare occasion of internal sphincter degeneration, any form of repair has been met with poor results.

NEUROPATHIC & IDIOPATHIC FAECAL INCONTINENCE

Pudenal neuropathy is a common cause of neuropathic faecal incontinence. The Pudendal nerves are prone to stretch injury on two occasions: during childbirth and on repeated, prolonged straining during defecation. In the latter case, there is usually an excessive perineal descent and the patient has evacuation difficulty and chronic constipation.

A rare cause of faecal incontinence is internal sphincter degeneration. These patients experience passive faecal incontinence. Urge incontinence is generally absent. The internal anal sphincter is seen to be thin and hyperechoic on endo-anal ultrasound.

Although tightening the sphincter and lengthening the anal canal improves function for some patients, the overall results of sphincter repair have been disappointing (Table 4). Sacral nerve stimulation is a promising innovation for this group of patients. Electrodes are implanted into the sacral foramina to constantly stimulate the sacral nerve roots. Matzel el al notices an increase in closing pressure of the anal canal with prolonged stimulation. Vaizey et al noticed enhanced maximal squeeze pressure but not the resting pressure. The rectum became less sensitive to filling although compliance was unchanged. Electro-stimulation appeared to alter rectal and anal smooth muscle activities and facilitated external sphincter contraction. Several authors reported high success rate with this technique (Table 5).

"END STAGE" FAECAL INCONTINENCE

When the sphincters are damaged beyond salvage, the traditional treatment is colostomy. It is still the kindest way out for some. Two other methods that have become available are the muscle transpositions and the artificial bowel sphincter, together known as neo-sphincters.

Neo-sphincters have become more and more a common procedure in the colorectal surgical arena in recent years and already a large number of patients have benefited.

Several US and European surgeons recently released their consensus statement regarding neo-sphincters. They stated that neo-sphincter is a valid option in end-stage faecal incontinence. For selected patients, electrically stimulated skeletal muscle transposition is appropriate after abdomino-perineal resection for rectal cancers (Dis Colon Rectum, 2000).

Muscle Transposition

The gluteus and the gracilis muscles have both been successfully transposed around the rectal tube. The simple wrapping itself reinforces resting anal tone. A further refinement is stimulated graciloplasty. A pulse generator is implanted subcutaneously and an electrode is threaded to the muscle. Continuous stimulation of the fast-twitch gracilis muscle keeps it contracted. Electrostimulation can be turned or and off by a remote control or magnet as desired. The method has recently fallen out of favour worldwide since Medtronics, the manufacturer of the pulse generator has decided to withdraw the product from the market.

Artificial Bowel Sphincter

The artificial bowel sphincter is an inflatable cuff implanted around the rectal tube. To allow defaecation, the patient pumps water out of the cuff to deflate it. Water flows down the pressure gradient to re-inflate the cuff automatically after an interval. The idea is simple and neat. Complication rate was high. For those who were successful, significantly improved continence scores and elevated resting sphincter pressures were recorded.

MALONE ANTEGRADE CONTINENCE ENEMA

Chronic constipation and overflow faecal incontinence occur after spinal injury or central nervous system diseases. By flushing the colon clear of its contents daily, it is possible to keep these patients clean and dry most of the time. Water or physiological saline is flushed

through a surgically created appendicostomy. The method, known as Malone Antegrade Continence Enema (MACE) has been particularly successful with children (Table 7). Good long-term (6 years) results have been demonstrated. The method is not free of morbidity; and these include stoma stenosis and small bowel volvulus with obstruction [39]. The use of MACE in adults remains to be proven.

BIOFEEDBACK

Biofeedback has been extensively studied. Biofeedback carries no risk, is non-invasive and is painless. However it is labour-intensive. When no obvious cause is identifiable, or if the sphincter is weak without structural or obvious neurological damage, a course of biofeedback is worth trying. The patient who has obvious sphincter defect will also benefit from pelvic floor exercise. Sometimes, surgery can be avoided. After surgical sphincter repair, the patient has to relearn the repaired muscle. The surgeon thus works hand in hand with the biofeedback therapist to provide the patient with a comprehensive sphincter retraining program. Diarrhoea and overflow faecal incontinence has been shown to improve with biofeedback.

IS THERE A ROLE FOR COLOSTOMY?

The aim of treatment of faecal incontinence is to improve the quality of life, self-image and prevention or treatment of complications. Patients whose quality of life is severely restricted due to old age, dementia, etc. are best treated less aggressively. In this context, a diverting colostomy is sometimes the best and kindest treatment. A colostomy diverts faecal stream away from the perineum. Persistent perianal soiling and skin excoriation are thus prevented. The risk of infected bedsores will be minimized. If there is a recto-vaginal fistula, leakage is prevented.

CONCLUSION

Faecal incontinence is a miserable symptom. A good percentage of those afflicted can potentially improve with treatment. Surgery is particularly successful when structural damage is present. Neuropathic and idiopathic faecal incontinence benefits most from sacral nerve stimulation. The artificial bowel sphincter is the last resort for the irreparable sphincter before proceeding to colostomy. In the debilitated few, colostomy is still the kindest treatment.

Table 1: Results of Overlapping Sphincteroplasty

Author	N	Good Results
Hool et al, CCF (Ohio) 1999	51	80%
Gilliland et al, CCF (Florida) 1998	77	55% at 24 mth
Young et al, Sydney, Australia 1998	24	86% at 18 mth
Engel et al, St. Mark's Hospital 1994	55	79% at 15 mth
Khanduja et al, Ohio 1994	11	64% at 16 mth
Gibbs et al, Augusta 1993	33	73%

Table 2: Success Rate Deteriorates with Time

Author	N available for assessment	Success Rate
Karoui et al, France 2000	86 at 3 months	82%
	74 at 40 months	51%
Malouf et al, St. Mark's Hospital 2000	53 at 15 months	76%
	46 at 5 years (at least)	50%

Table 3: Internal Sphincter Damage, Results of Direct Repair

Author	N	Results
Lenti et al, St. Mark's Hospital 1997	5	3 improved, 0 fully continent
Abou Zied et al, Egypt 2000	8	6 improved, 2 fully continent

Table 4: Sphincteroplasty for Idiopathic Faecal Incontinence

Author	N	Successful	Methods of Repair
Diaz-Gomez et al	11	8	Posterior Repair (2) Double Repair (9)
Orrom et al	16	10	Anterior Repair
	17	10	Posterior Repair
Setti Carraro P et al	34	28	Posterior Repair

Table 5: Results of Sacral Nerve Stimulation

Author	N	Successful Cases	Follow-Up Duration
Malouf et al	5	5	16 Months
Vaizey et al	2	2	9 Months
Osterberg et al	24	11	3 Months
	13	9	12 Months
Vaizey et al	9	8	>1 Week
Matzel et al	3	3	6 Months

Table 6: Muscle Transposition for End Stage Faecal Incontinence

Author	Type	N	Success(%)
Devesa et al, 1997	Advnamic Gluteoplasty	17	9 (53)
Meehan et al, 1997	Advnamic Gluteoplasty	7	5 (71)
Christiansen et al, 1995	Advnamic Gluteoplasty	7	3 (43)
Farid et al, 2000	Dynamic Gluteoplasty	9	7 (78)
Mavrantonis et al, 1999	Dynamic Gluteoplasty	27	13 (48)
Sielezneff et al, 1999	Dynamic Gluteoplasty	16	13 (81)
Violi et al, 1999	Dynamic Gluteoplasty	8	4 (50)
Adang et al, (Abs)	Dynamic Gluteoplasty	13	6 (46)
Versluis et al, 1995	Dynamic Gluteoplasty	38	24 (63)

Table 7: Results of Malone antegrade Continence Enema

Author	N	Success(%)
Griffiths et al, 1995	21	15 (71)
Van Savage et al, 2000	16	16 (100)
Schell et al, 1997	23	20 (86)
Koyle et al, 1995	22	16 (73)

≺ 國內的行屎流動力學檢查室

國內失禁護理的現狀

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隨著大陸內地生活水平的不斷提高，人們越來越注重自己的生活質量，大小便失禁病人的就診率越來越高，同時，隨著醫療護理水平的不斷提高，對大小便失禁病人的護理也進入了有專科特色的專科護理，特別是造口治療師的出現，使失禁病人的生活狀況得到了極大的改善。

目前在大便失禁護理方面：診斷大便失禁的手段和方法越來越完善。目前所採用的方法主要有：直腸指檢、排糞造影檢查(瞭解肛直角及會陰下降程度)、肛腸測壓和肌電圖檢查(瞭解括約肌功能狀況及缺損活動性)、鋇水灌注試驗和氣囊儲存試驗(瞭解直腸儲存功能)。護理上所採取的主要護理措施有指導病人肛門括約肌戰爆、排便訓練。有報道自製氣囊肛管應用於大便失禁、便用棉條卷塞肛、肛周按摩及電針灸的護理方法，收到一定的效果。

在尿失禁護理方面：神志清醒和感覺正常的尿失禁的病人常規行尿流動力學檢查。護理上根據失禁的種類不同採取相應的方法，主要有盆底肌訓練、膀胱訓練同時配合藥物治療，必要時結合手術治療。指導滿溢性失禁的病人如胸腰段脊髓損傷病人行自我清潔間隙導尿法，同時給病人制定飲水計劃。昏迷合併尿失禁的男病人使用陰莖套接尿引流袋，女病人使用尿墊。

從1986年以來國內相繼有雜誌報導採用中醫導針的針灸參與治療尿失禁，均有不同的效果。

大小便失禁病人的皮膚護理：在治療大小便失禁病人的同時更在更加注重病人的皮膚護理，除了及時清洗保持皮膚乾爽外，會陰部及臀部皮膚使用無痛保護膜以隔離糞便和尿液對皮膚的刺激，如有外陰部及臀部皮膚潮紅及破壞皮損時，則使用護膚粉末治療，均可取得良好效果。對於因反復擦洗及摩擦引起的較?壞重的皮損則根據皮損情況按傷口處理。同時指導病人使用合適的尿墊。

目前有關失禁的專科護理主要局限於一些大型的綜合性醫院和專科醫院，大小便失禁的病人在症選疾病的危重期後通常轉至康復醫學科(Department of Rehabilitation Medical)進行康復治療，物理治療師將參與大小便失禁的治療如採用肛門/陰道生物反饋治療及電刺激等，康復科護士對一些意識及活動能力有障礙的病人進行日常生活自理能力訓練如床椅轉移、入廁等，改善了病人的生活自理能力，從而大大降低了功能性失禁的發生；而在一些較小規模的醫院中失禁的專科護理尚未開展，有待進一步普及。

Setting up of Enterostomal Therapy Nursing Education Program (ETNEP) in PR China

Lee Wai Kuen Nurse Specialist (Stoma Care) QMH

Enterostomal Therapy Nursing is the specialty care for the patients with stoma, wound and incontinence problems. Before year 2000, there was only one Enterostomal therapist in Shanghai. Millions of patients in China could not receive proper nursing care. In order to develop this specialty in China and benefit for the patients, we decided to set up a program to train the local nurses.

Since there was no ET in China to help us in coordination, we had arranged 1 nurse from Shanghai and 3 nurses from Guangzhou to Hong Kong to study a proper ET program. After their study, they went back and help us to liaise with Department of Nursing, Sun Yat-sen University and Tumour Hospital of the same university to organize a proper ETNEP in Guangzhou. The course opened in 2001.

This was a big project; we had arranged over 20 speakers, including doctors, enterostomal therapists, continence nurse specialists, occupational therapist, and podiatrist to go for teaching and 15 mentors participated in clinical practicum. All of them were volunteers. They spent their own time to share and teach the nurses there. In these 2 years time, we had totally trained 23 new ETs in China.

It was really a very special experience. The practice was quite different between Hong Kong and China. For example, the nurses in China did not need to do the wound dressing. They were done by the doctors. Their patients would not have incontinence problems for they all on Foley catheters and napkins. There was no patient need bladder training or toilet training.

We hope this program will alert the medical and nursing staff that they need to face the incontinence problems for their patients. In addition, it will enhance the nursing profession in PR China and finally benefit the patients.

活動匯報

活動匯報

1. Certification Course on Continence Care for Registered Nurse

Date: 11 - 23 November 2002

Organizing Agent: United Christian Hospital

2. Educational Talk and Training Workshop on Continence

Organizing Agent: HK Continence Society & Community Rehabilitation Network

Educational Talk provided by Dr. Leung Man Fuk, Chief of Service (Med. & Geri.), UCH

Date: 5 October 2002

Educational Talk provided by Dr. John Fong, Consultant Surgeon, QEH

Date: 19 October 2002

Training Workshop provided by Ms. Chan Sau Kuen, Nurse Specialist (Continence Care), UCH and Ms. Grace Yuen, Occupational Therapist, Ruttonjee and Tang Shiu Kin Hospitals

Date: 2 November 2002

Training Workshop provided by Ms. Katherine Siu, Nurse Specialist (Continence Care), PMH and Ms. Malsie Wong, Physiotherapist

Date: 16 November 2002

3. 長者小便失禁講座

Date: To be confirmed

Speaker: Ms. Ip Kam Tin, Nurse Specialist (Geriatric Nursing), KWH

Organizing Agent: 建國仕瑞元嬸老人服務中心及香港理遺學會

4. International Children's Continence Society & Asian Pacific Association of Paediatric Urologists Joint Meeting (Hong Kong)

Date: 10 - 13 December 2002

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