Dealing with faecal incontinence

VIRGINIA GILL MAppSc (Physiotherapy)

Faecal incontinence can severely impact on the quality of life of sufferers. This article covers the different types of treatments, including physiotherapy techniques, to help control faecal incontinence.

Remember

- Faecal incontinence refers to the involuntary loss of liquid or solid stool or gas. It has significant medical, social and economic implications, impacting severely on the quality of life of sufferers and their carers.
- The estimated prevalence of faecal incontinence is poorly researched and estimates vary from 0.5 to 20.7%.[1] The prevalence increases with age, affecting up to 50% of nursing home populations.[2] Women with both urinary incontinence and pelvic organ prolapse are at an increased risk of developing the condition. Poor general health and limited physical exercise are associated factors.
- Specific causes of faecal incontinence include anal sphincter weakness (either trauma-related, e.g. obstetric trauma and surgical procedures such as haemorrhoidectomy and pelvic fracture, or non trauma-related, e.g. scleroderma, diabetes and internal sphincter thinning of an unknown cause), neuropathy (e.g. stretch injury caused by obstetric trauma and chronic straining), anatomical disturbance of the pelvic floor (caused by fistula, rectal prolapse and descending perineum syndrome), inflammatory conditions (e.g. Crohn's disease, ulcerative colitis and radiation proctitis), diseases of the central nervous system (e.g. dementia, cerebrovascular accident, brain tumours, spinal cord lesions and multiple sclerosis) and diarrhoea (e.g. irritable bowel syndrome, post-cholecystectomy diarrhoea, faecal impaction and secondary to drug therapy).
- Faecal continence requires formed stools, intact sensation and motor control of the anal sphincter mechanism, as well as adequate mental faculties and general mobility. These factors allow a person to be aware of rectal filling (to be able to discriminate between a solid, liquid or gas), withhold rectal contents and to expel contents at will.

Ms Gill is a Physiotherapist with a special interest in bladder and bowel problems at Flinders Medical Centre, and in private practice, Adelaide, SA.

Assessment

- A detailed history should include usual bowel function, symptoms and effect of faecal incontinence on lifestyle, plus other conditions and current medications (certain medications affect stool consistency and nocturnal faecal incontinence is more common in individuals with diabetes and scleroderma).
- It is necessary to enquire about consistency of stool, urgency, frequency, straining, satisfaction with emptying and the need for perineal/vaginal pressure or anal digitation to empty.
- Dietary factors that may influence the risk of faecal incontinence include fibre, daily fluid intake, caffeine, fats, spices and artificial sweeteners, alcohol and nicotine.
- Protrusions per rectum and per vaginum may suggest concurrent prolapse and straining habit.
- Passive soiling is usually associated with dysfunction of the smooth muscle of the internal anal sphincter or rectal impaction.
- Soiling with urgency, an inability to defer and normal stool consistency suggests dysfunction of the striated external anal sphincter (EAS).
- A digital rectal examination can assess sphincter integrity, resting pressure (smooth muscles of the internal anal sphincter), squeeze pressure (striated fibres of the EAS – squeeze pressure should be twice the resting pressure) and puborectalis action in decreasing anorectal angle.
- Investigations carried out in specialist units can evaluate functional abnormalities. These investigations include anal ultrasound (reveals integrity of the anal sphincter), anorectal manometry (measures the internal resting tone and squeeze pressures in the anal sphincter), electrophysiological testing (identifies rectal sensation) and pudendal nerve conduction.

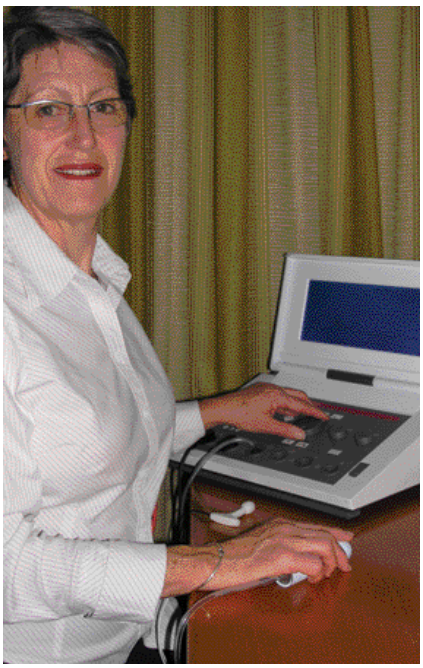

Figure. Virginia Gill with biofeedback monitor and electrodes.

Management

- To treat patients with faecal incontinence it is necessary to treat the underlying cause. In some cases, more than one treatment regimen may be necessary.

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Physiotherapy techniques

- Specific physiotherapy techniques include exercise training to strengthen the EAS and puborectalis muscle. Anal electrical stimulation and biofeedback therapy may be used as treatment adjuncts.[5]
- Exercise training is recommended in patients with poor EAS squeeze pressure, with or without sensation of rectal filling. Patients require a mental capacity to follow instructions and motivation to continue home training. Training also aims to improve sensation of rectal filling.
- Despite widespread awareness of pelvic floor muscle exercises, skilled instruction is necessary. An inappropriate increase in intra-abdominal pressure and straining is commonly seen, which may increase the risk of faecal incontinence, urinary incontinence, prolapse and muscle trauma.
- Effective EAS and pelvic floor muscle training is based on physiological principles, rather than generous exhortations to 'squeeze it all in'. Training regimens vary in exercise type, intensity, frequency and endurance. Patients with weak pelvic floor and sphincter muscles, including those with rapid symptomatic improvement, must continue muscle and sensory training for up to five months for optimum results.[6]
- Medical support is vital to motivate patients to comply with training.
- Biofeedback therapy for faecal incontinence requires the insertion of either a pressure sensitive probe or an electromyogram electrode into the anal canal. Activity of the anal sphincters is displayed on a monitor and patients can be taught how to selectively contract their anal muscles by using feedback from the monitor. Training can help strengthen the puborectalis and EAS muscles, improve co-ordination between the abdominal and anal sphincter muscles and enhance anorectal sensation.[5,7]
- Biofeedback-assisted exercise training, when instructed by a skilled therapist, has shown success of up to 70%.[5] Biofeedback-assisted training also includes patient education, modification of diet and bowel habit to influence stool consistency. A full comprehensive approach to physiotherapy treatment of faecal incontinence will remain until the most effective elements are identified.
- The number of physiotherapists skilled in pelvic floor therapies is limited, but is increasing. GPs can contact their local branch of the Australian Physiotherapy Association (APA) to find an APA Continence/Pelvic Floor Physiotherapist or use the 'APA Find a Physio' website (www.physiotherapy.asn.au/findaphysio).

• Supportive therapy includes dietary changes, education and counselling. Dietary changes include ensuring that the patient is eating adequate but not excessive amounts of fibre, limiting excessive caffeine intake and eliminating fructose and lactose from the diet if an intolerance to these foods is suspected.

• Pharmacological therapy includes loperamide (reduces diarrhoea and increases internal anal sphincter tone), diphenoxylate plus atropine (Lomotil or Lofenoxal; antidiarrhoea agent) and codeine (antidiarrhoea agent).[3]

• Physiotherapy techniques, including pelvic floor and external anal sphincter exercises (also known as Kegel exercises) and biofeedback therapy, are recommended in patients with faecal incontinence and a weak anal sphincter (see box on this page). Good outcomes have been shown when treatment has been applied by a physiotherapist skilled in pelvic floor rehabilitation.[4-7]

• Other therapies include anal plugs, sphincter bulkers (e.g. collagen, glutaraldehyde cross-linked bovine collagen implants and silicone) and ancillary therapy (anal electrical stimulation).

• Surgery for patients with faecal incontinence should only be considered in those who do not respond to medical therapy. Surgical techniques include sphincteroplasty, anterior repair, gracilis/gluteus muscle transposition +/- stimulation (involves implantation of an electric pulse stimulator to prevent muscle fatigue and maintain constant contraction), artificial bowel sphincter, sacral nerve stimulation and colostomy (reserved for individuals with intractable faecal incontinence). MT

References

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DECLARATION OF INTEREST: None.