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# Introductory Chapter: Challenges in the Diagnosis and Treatment of Faecal Incontinence

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## 1. Introduction

Faecal incontinence is defined as the involuntary loss of faeces and flatus through the anal canal and the inability to postpone defaecation until socially convenient. In the majority, it is a physically debilitating and socially stigmatising condition that may have an adverse effect on one's quality of life. There are many aspects of one's life that are affected by this condition. Faecal incontinence has been shown to be associated with poor self-esteem, embarrassment, and depression. Those afflicted with this condition frequently need to plan and organise their lives around the availability of and easy access to bathrooms and frequently avoid social and leisure activities, especially venturing outdoors.

The prevalence of faecal incontinence in the UK is estimated to be about 2% of the general population. Certainly the prevalence increases with age. Other independent risk factors include female sex, physical limitations, poor general health, and loose and frequent stools. From the financial point of view, the investigation and treatment of faecal incontinence may add to a significant cost to the health budget of most countries. In fact, the annual cost to treat and care for patients in the UK with urinary and faecal incontinence and the consequences thereof is of about £500 million. In addition, there are significant financial costs to the patients, their families, and their employers due to the time taken off work and unemployment.

### 1.1 Diagnostic challenges

The pathophysiology of faecal incontinence is multifactorial. This presents the first challenge: that of reaching a correct diagnosis. A thorough clinical assessment of the patient is therefore mandatory. A detailed history, including a cognitive assessment in most cases, is necessary. The characteristics of the faeces and the type and frequency of incontinence should be noted. Urge incontinence is suggestive of poor external anal sphincter function, whilst passive and post-defaecatory incontinence indicates that internal anal sphincter function is weak. Any red flag symptoms, the symptoms suggestive of colorectal cancer such as rectal bleeding, should be identified. Importance should be placed on secondary symptoms such as pruritus ani and perianal skin, since these may reflect upon the severity of the incontinence and may in some cases be the presenting complaint. Various questionnaires that enable the clinician to quantify the degree of incontinence, the severity of symptoms, and the impact on quality of life are available. These include symptom-specific questionnaires, such as the ones developed by Vaizey et al. [1] and Jorge and Wexner [2], the Faecal Incontinence Quality of Life Scale (FIQOL) developed

by Rockwood et al. [3], and also generic questionnaires such as the Short Form 36 (SF 36) [4]. Further information is obtained from a full examination of the patient, including the abdomen and perineum, and a neurological examination in some cases. Beneficial investigations include a flexible sigmoidoscopy, anal manometry (resting and squeeze pressure), rectal compliance, pudendal nerve terminal motor latency (PNTML), endoanal ultrasound, and defaecating proctography. Clinicians, however, need to be able to determine which test to perform and when. Crucially important is the correct interpretation of the results to ensure as accurate a diagnosis as possible. This presents a difficulty in itself due to our incomplete knowledge in some areas of physiology and pathophysiology and also due to the weak correlation between subjective and objective parameters.

## **1.2 Treatment challenges**

The treatment of faecal incontinence is most often demanding. Determining the appropriate treatment depends upon the accuracy of the diagnosis but also has to be tailored to the individual patient, taking into consideration the individual circumstances.

There are many publications listing the various modalities of conservative and operative treatment options. The main aim is to treat the patients' incontinence conservatively in the first instance. Stool consistency may be improved with the use of loperamide and codeine, biofeedback and pelvic floor exercises may help improve rectal evacuation, anal plugs minimise passive incontinence, and so on. Failure of medical therapy may lead to consideration of surgical options, of which a variety are available. For example, traumatic disruption to the anal sphincter and pelvic floor may be repaired, either by simple muscle apposition or, in exceptional circumstances, by more advanced and complex techniques such as the gracilis neosphincter. However, direct surgery on the colon, rectum, and anal sphincter is both invasive and irreversible, as well as being associated with poorly sustained long-term outcomes and well-established complications. A less invasive surgical mode of treatment is sacral nerve stimulation (SNS), which has been shown to be effective in the improvement of continence in a selected group of patients. Other more minimally invasive procedures, such as the SECCA procedure and the use of anal bulking agents, have an important role to play. Scientific advances in the field of anal implants, with their associated clinical benefits and safety profile, are making these minimally invasive operations a more viable and effective option. A colostomy always remains an option and may be considered in certain circumstances, such as in those who are bed-bound, those with upper motor neurone lesions, and those where other surgical options have failed or are considered inappropriate.

The choice of treatment is not always straightforward. It is therefore advisable that patients are managed in a multidisciplinary setting, especially those who failed conservative management and may require operative intervention. Continence multidisciplinary team meetings to discuss patients with challenging continence issues are therefore highly commended [5].

Moving forwards, we are faced with exciting challenges as technology is rapidly advancing. A main example is the intrinsically innervated BioSphincter, which has the potential to improve the quality of life of so many of our patients. Watch this space!

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