

## Risk factors in acquired faecal incontinence

Peter J Lunniss MS FRCS Marc A Gladman MRCOG MRCS Franc H Hetzer MD  
Norman S Williams MS FRCS S Mark Scott PhD

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### SUMMARY

Acquired faecal incontinence arising in the non-elderly population is a common and often devastating condition. We conducted a retrospective cohort analysis in 629 patients (475 female) referred to a tertiary centre, to determine the relative importance of individual risk factors in the development of faecal incontinence, as demonstrated by abnormal results on physiological testing.

Potential risk factors were identified in all but 6% of patients (7 female, 32 male). In women, the principal risk factor was childbirth (91%), and in most cases at least one vaginal delivery had met with complications such as perineal injury or the need for forceps delivery. Of the males, half had undergone anal surgery and this was the only identified risk factor in 59%. In many instances, assignment of cause was hampered by a long interval between the supposed precipitating event and the development of symptoms. Abnormalities of anorectal physiology were identified in 76% of males and 96% of females (in whom they were more commonly multiple).

These findings add to evidence that occult damage to the continence mechanism, especially through vaginal delivery and anal surgery, can result in subsequent faecal incontinence, sometimes after an interval of many years.

### INTRODUCTION

Faecal incontinence, the involuntary loss of rectal contents at a socially inappropriate time or place, is an underappreciated condition<sup>1</sup> which affects at least 2% of adults in the community.<sup>2</sup> The prevalence in elderly people is up to 15%, and higher still among those living in residential or nursing homes.<sup>3</sup> However, by comparison with urinary incontinence<sup>4,5</sup> the condition suffers neglect. This is surprising, given that the prevalence of the two conditions is similar, they frequently coexist,<sup>6</sup> and they may have common aetiologies;<sup>7,8</sup> moreover, the physical, psychological and social incapacitation related to faecal incontinence may be greater.<sup>8</sup>

Patients seeking help can now be referred to specialist units for comprehensive investigations of anorectal function, in the hope that an understanding of the individual pathophysiology will allow specific rather than empirical management. The results of interventions, however, whether conservative or surgical, are commonly disappointing. Consequently, we need to identify factors in the

histories of these patients that might allow preventive strategies.

Most individuals become faecally incontinent as a result of some form of insult—for example, obstetric trauma, anal surgery, neurological disease, pelvic surgery.<sup>2,8–13</sup> In some cases, the cause–effect relation is clear, in that a temporal relation is evident, the sufferer ascribes onset of symptoms to the event (e.g. 5–13% incidence of faecal incontinence after vaginal delivery in primiparous women<sup>14,15</sup>), and the pathophysiology is demonstrable on anorectal function testing.<sup>15</sup> Symptoms, however, may not develop until many years after the event,<sup>16</sup> and the relation between cause and effect may then be unclear. It is known that the incidence of occult anal sphincter damage following vaginal delivery (even those deemed ‘uneventful’) is much higher than the incidence of immediate post-partum incontinence,<sup>17</sup> and that unsuspected anal sphincter defects occur following various ‘minor’ anal surgical procedures.<sup>9</sup> Such pathophysiology provides the potential for subsequent development of incontinence in combination with other factors such as ageing.<sup>18</sup> Unfortunately, there have been no large and long-term prospective studies addressing eventual functional outcome. By performing a retrospective analysis of a large series of patients referred consecutively for investigation of faecal incontinence, we aimed to determine: the relative importance of individual proposed risk factors; the proportions of patients in whom the cause–effect relation was clear or unclear; and, in those patients

Centre for Academic Surgery (Gastrointestinal Physiology Unit), Queen Mary's School of Medicine and Dentistry, Royal London Hospital, Whitechapel, London E1 1BB, UK

Correspondence to: Dr SM Scott, Gastrointestinal Physiology Unit, 3rd Floor, Alexandra Wing, Royal London Hospital, Whitechapel, London E1 1BB, UK

E-mail: m.scott@qmul.ac.uk