Encopresis in children: a cyclical model of constipation and faecal retention

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SUMMARY. Encopresis afflicts one in 100 children causing considerable stigma and parental concern. General practitioners are in a position to help in most cases but are often deterred by the psychoanalytical theories which have been developed to explain this problem. It is currently accepted that children with encopresis tend to retain stools. This leads to constipation, overstretching of sphincters and resultant faecal soiling. Physical and psychological perpetuating factors result in retention once again, thus completing a cycle of constipation and retention. Various precipitant and predisposing factors can maintain this cycle. Once physical causes have been excluded a simple behavioural approach can be adopted aimed at retraining the bowel. By using laxatives to prevent retention, gaining the child's confidence, cooperation and understanding and involving both the family and school, encopresis can be successfully managed in general practice.

Introduction

> 'Faeces are the child's first gift, the first sacrifice on behalf of his affection, a portion of his own body he is ready to part with, but only for the sake of someone he loves.'[1]

FREUD'S intimidating statement pervaded feeling about encopresis for over half a century. More recently Kessler accused the encopretic child of symbolically expressing 'pregnancy wishes'.[2] It is little wonder then that general practitioners have felt nervous when managing the child with encopresis.

Over the last 30 years, following an influential article by Anthony in 1957,[3] there has been a gradual process of demystification. Today the encopretic child need not be sent to a psychoanalyst straight away. Most cases can be dealt with by general practitioners using simple behavioural techniques, laxatives, and explanation and support for the child and family. Indeed, in terms of working with the family and in reducing the stigma attached to the child the general practitioner is perhaps better placed than most other relevant professionals. This article clarifies what encopresis actually is and provides a model for its management by general practitioners.

Development of faecal continence

Faecal continence is a major concern to all parents. To begin with the child is a fairly passive conduit for the digesting and processing of food and the elimination of waste products. By the age of 15 months the child is able to stand and some children may instinctively assume the squat position. The passage of stool is indicated but only after the event. By the age of two years children are able to verbalize their toilet needs in reasonable time. The ability to withhold and postpone defecation is achieved by the age of three years and at four years it has become a private function.

Learning not to soil within the direct living area of the human group seems to be universal and is found in all societies. Toilet training is not an exclusively human pastime. Piglets learn to defecate in the corner of the pen away from the lying area. Those reared without mothers have a random pattern of elimination and are continually dirty.[4]

Advice on toilet training has always been freely available from many sources but whatever the advice, attitudes today tend to be less dogmatic than they were. The Health Education Authority's book *Birth to five*,[5] distributed to all new mothers, is pragmatic when it comes to toilet training. The authors suggest beginning toilet training in the summer months as there will then be fewer clothes to wash and they can be dried more quickly.

Definition and prevalence

In the literature the terms encopresis and faecal soiling are used interchangeably. This is usually related to the source of the article, the term soiling being favoured by psychiatrists and encopresis by paediatricians. For the sake of discussion the following definition will be used here:

> 'The deposition of formed or semi-formed stools in a child's underwear (or other unorthodox locations) after the age of four years on a regular basis.'[6]

Excluded from this definition are infrequent 'accidents', pathological diarrhoea and incidents occuring on occasions of fear and urgency.

It is not immediately obvious how many children are affected by encopresis because of social taboos surrounding the subject and the attendant family responses of guilt, shame and sense of failure. There have been three major epidemiological studies among children.[7-9] In all three the prevalence of encopresis was found to be around 1% with a constant finding of a male to female ratio of 3:1.

Aetiology and classification

The aetiology of encopresis is unclear although many suggestions have been made over the last 40 years. A physical predisposition, namely colonic inertia in infancy, was proposed in the 1960s[10] but has since found little favour. There are many psychogenic explanations, the most commonly cited being coercive toilet training.[3,11] Anthony[3] did, however, add the proviso that problems concerning toilet training were only one aspect of a defective mother–child relationship. Maternal ambivalence to the child's need for autonomy was proposed by Easson[12] but a number of other prevalent maternal attitudes have also been identified.[7] Curiously enough there is no convincing evidence of a family feature which is particularly associated with encopresis in a child although increased marital disharmony has been found between parents of encopretic children.[13] Lastly, there does seem to be a strong correlation between encopresis and developmental delay.[14]

Most authors classify encopresis in three groups (although by no means the same three). A typical division[15] is as follows:

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Primary encopresis. Where bowel control is not gained, occurring typically in children from disadvantaged homes.

Secondary encopresis. Where bowel control is gained but regression occurs as part of an emotional disturbance.

Constipation with overflow. Where children pass fluid faeces over which they have no control.

Unfortunately, using such distinctions is rarely useful and there is an alternative and perhaps more unified way to look at the problem — as a cyclical model of constipation and retention of stools. The key to contemporary understanding of encopresis is to assume that almost all encopretic children retain stools, at least intermittently. This has been demonstrated most notably by Levine.[16]

Faecal retention cycle

If it is assumed that the child is retaining stools, then this leads to a cycle of impaired feedback from the rectum, constipation, overstretching of sphincters and resultant faecal soiling. Physical and psychological perpetuating factors complete the cycle. The whole process is maintained by longstanding predisposing and short term precipitating factors.

The main physical problem which perpetuates the cycle is an anal fissure. Naturally, a child with a fissure retains stools in order to avoid the pain of defecation. There are many psychological factors which perpetuate the problem. The child may be oblivious of the need to visit the toilet and indeed of the attendant smell. At school this will lead to taunting from other children, shame, guilt, secrecy, withdrawal, loss of self esteem, anxiety and depression. At home blame, mockery, anger and a variety of other degenerate family reactions reinforce this miserable pathway.

Predisposing and precipitating factors can be grouped together and described in terms of three broad age groups — infant, toddler and child.

In infancy, simple constipation, colonic inertia, congenital bowel conditions and anorectal conditions all predispose to a holding pattern later on. During the toddler years psychological stresses can result from problems with toilet training as well as from the tussle for independence. Toilet fears and phobias may begin at this age and may persist for many years.[3]

At school, toilet phobias may be more real — cold seats, no doors or no toilet paper. This leads to withholding of stools and by the end of the school day the urge is lost. Most accidents tend to occur later in the day, for example, on the bus on the way home. A frenetic lifestyle can also pose problems. Again, physical problems may predispose to or precipitate faecal soiling.

Management

Using this cyclical model the evaluation of the encopretic child becomes relatively simple — physical disease is first excluded, and then the pattern or cycle of the encopresis and its severity are established. Precipitating, predisposing and perpetuating factors are identified and the family's capacity for insight established.

An initial concern may be that the problem is caused by Hirschsprung's disease. However, true Hirschsprung's disease is very rare and there are distinct differences in the clinical picture. Hirschsprung's disease starts in infancy, the child becomes wasted producing thin rubbery stools with intermittent obstruction; there is rarely heavy soiling. Other causes to be excluded are lesions of the central nervous system, hypothyroidism and associated urinary tract infections. There is a strong argument for obtaining an abdominal x-ray at this stage, as not only will this give some idea of the extent of the faecal retention, it also serves as a visual aid when trying to involve the parents in the clinical management.

Having attained this information the next step is to gain the child's confidence, cooperation and understanding. A positive and non-accusatory attitude should prevail at all times. Admiration can be expressed for the child's courage at school and he or she should be made aware that other children have this problem too. The parents should be told that the child is not doing this on purpose and is probably not aware that it is happening at the time.

The metaphor of muscle is useful at this point. Using diagrams it can be made clear to both child and parents that the bowel has become stretched and is full of hard faeces, and that the stretching has weakened the bowel's musculature which now needs retraining. The management plan, or training programme can then be explained. This involves an initial vigorous catharsis, using laxatives rather than enemas. Senna and lactulose can both be used.[17] Regular 'training' over several months can be instituted but it should be stressed that this is not a punishment. Two sessions on the toilet every day of 10–15 minutes each are suggested. A kitchen timer may prove useful. Star charts can be used to record successful bowel actions.

This approach should be backed up by maintenance laxatives which can be phased out over one to two months. An increase in dietary fibre can be suggested. The help of the child's school should also be enlisted with special toilet privileges awarded such as permission to leave lessons, use of the staff toilet and so on.

Finally, the psychological component of the problem must be tackled. This is particularly important where retention of stools has ceased to be a major factor and defecation has assumed some secondary function such as a masked or open protest. In these cases the child psychiatry or family therapy services can be involved. In the practice local knowledge may alert general practitioners to family patterns which predispose children to this problem and to possible psychodynamic precipitating factors. General practitioners can also identify those family reactions that may perpetuate the problem.

Conclusion

This paper has given a brief description of one possible approach to the management of encopresis. The behavioural rather than the psychological aspects have been emphasized as too often the latter can deter general practitioners from attempting to manage this problem. Dealing with encopresis in general practice can reduce childhood stigma, further the doctor's relationship with the family, reduce waiting lists at paediatric outpatient departments and ultimately be extremely satisfying. Success is not guaranteed[18] but it is certainly possible and the attempt should be made.

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