



Weekly therapeutic dose of methotrexate plotted against predicted creatinine clearance ( $r=0.76$ ,  $p<0.001$ ).  $Dose=1.25+(0.157 \times \text{predicted creatinine clearance})$

resulted in minimal improvement in the association  $F_{1,20}=2.4$ ,  $p>0.01$ ).

### Comment

The dose of methotrexate needed to control severe psoriasis in patients over 50 was found to decrease with decreasing predicted creatinine clearance and increasing age. Six of the 10 subjects aged over 70

required less than the recommended dose of methotrexate.<sup>1</sup> Four patients aged over 80 were adequately treated with no more than 2.5 mg of methotrexate a week. The rate at which methotrexate clears from the serum correlates with creatinine clearance,<sup>4</sup> and we believe that the progressive deterioration in creatinine clearance associated with the natural aging process is the most likely explanation of our findings.

Methotrexate is particularly useful in frail elderly patients with widespread psoriasis whose physical infirmities prevent the use of other treatments. Prior calculation of the therapeutic dose of methotrexate may allow doctors to treat such patients more confidently and safely.

We thank Dr B J Leppard and Dr P G Goodwin for permission to investigate patients under their care and Mrs P J Perkins for technical help.

- 1 Walker G. *ABPI data sheet compendium 1988-89*. London: Datapharm Publications, 1988:743.
- 2 Bleyer WA. Clinical pharmacology: guidelines for the clinical use of methotrexate. In: Hall RR. *A comprehensive guide to the therapeutic use of methotrexate in bladder cancer*. New York: Castlereagh Press, 1983:51-69.
- 3 Cockcroft DW, Gault MH. Prediction of creatinine clearance from serum creatinine. *Nephron* 1976;16:31-41.
- 4 Kristensen LO, Weismann K, Hutter L. Renal function and the rate of disappearance of methotrexate from serum. *Eur J Clin Pharmacol* 1975;8:439-44.
- 5 Rowe JW, Andres R, Tobin JD, Norris AH, Shock NW. The effect of age on creatinine clearance in men: a cross-sectional and longitudinal study. *J Gerontol* 1976;31:155-63.

(Accepted 8 December 1988)

## Prevalence of reflex anal dilatation in 200 children

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Detecting cases of child sexual abuse is often difficult. Reflex anal dilatation has been described as a sign of anal abuse in children.<sup>1</sup> Although a study has been conducted at a specialist centre,<sup>2</sup> there are no reports on the prevalence of reflex anal dilatation in unselected clinic populations or in "normal" children. We looked at the prevalence of reflex anal dilatation in children attending community child health clinics and outpatient departments.

### Subjects, methods, and results

We looked for reflex anal dilatation in 200 consecutive children who were attending for routine examination in community health clinics, as new patients in a district general hospital's paediatric clinic, or as patients in a renal clinic. Children with lesions of the spinal cord were excluded. Carers were asked about constipation, stool frequency and consistency, and straining at stool. Abdominal evidence of faecal loading of the sigmoid colon was noted if present. After

explaining the procedure we attempted to elicit reflex anal dilatation by the method of Hobbs and Wynne.<sup>1</sup> A rectal examination was performed if indicated clinically. When reflex anal dilatation was present the carer was informed and asked whether he or she had any worries about possible abuse.

The table shows details of the children. In none of them was a history of abuse elicited. The youngest child with reflex anal dilatation was 7 weeks old. The anal dilatation varied from 0.5 cm to 3.5 cm in diameter. Its presence did not correlate with a history of constipation or the presence of palpable faeces in the abdomen. Despite this, of 18 children with reflex anal dilatation who had rectal examinations, 13 had faeces (hard in three cases) in the rectum. One child with functional megacolon had reflex anal dilatation, which resolved within a week of laxatives being started. Fissures were noted in four children, three of whom were severely constipated, of whom one had reflex anal dilatation. No child passed a stool immediately after reflex anal dilatation was elicited.

### Comment

During the study we and colleagues diagnosed cases of child sexual abuse (some with and some without reflex anal dilatation). Hobbs and Wynne did not find reflex anal dilatation in normal children, but their data

Numbers of children ( $n=200$ ) with and without reflex anal dilatation according to age and clinic attended

Type of clinic	Result of examination for reflex anal dilatation	Age					Total
		<6 Months	6-23 Months	2-4 Years	5-9 Years	≥10 Years	
Community	Positive	1	1	3			5 (6)
	Negative	21	21	31			73
General	Positive	1	1	4	8		14 (14)
	Negative	7	20	24	28	8	87
Renal	Positive		2	3	3	1	9 (43)
	Negative		2		6	4	12
Total	Positive	2 (7%)	4 (9%)	10 (15%)	11 (24%)	1 (8%)	28 (14%)
	Negative	28	43	55	34	12	172

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Br Med J 1989;298:802-3

referred to children in whom there was a high suspicion of abuse.<sup>1</sup> The present study was conducted while there was intense public interest in the subject, and some abused children may have been kept away from clinics, which may have reduced the prevalence of reflex anal dilatation. Failure to elicit a history does not necessarily exclude the possibility of child sexual abuse.

A recent poll (Market and Opinion Research Institute, 1988) of 664 people aged 15 to 24 from the London area suggested that far fewer than 1% had suffered anal abuse in childhood. This is considerably less than the prevalence of reflex anal dilatation found in this study. Our data raise several questions. Does the changing prevalence of reflex anal dilatation with age indicate a normal stage of development? Does the higher prevalence in children in the renal clinic indicate a marker of cloacal dysfunction or, despite published doubts,<sup>1</sup> an association between urinary

infection and child sexual abuse? Might the presence of stools in the anal canal be a causative factor?

Reflex anal dilatation is a sign with poor discriminatory value in diagnosing anal abuse in children. Despite our attempts at reassurance we were informed later that some parents had been distressed by the study and had sought transfer of care. This must temper the Department of Health and Social Security's recommendation that children with reflex anal dilatation "be seen again at a later date for reassessment."<sup>24</sup>

- 1 Hobbs CJ, Wynne JM. Buggery in childhood—a common syndrome of child abuse. *Lancet* 1986;ii:792-6.
- 2 Clayden GS. Reflex anal dilatation associated with severe chronic constipation in children. *Arch Dis Child* 1988;63:832-6.
- 3 Reinhart MA. Urinary tract infection in sexually abused children. *Clin Pediatr (Phila)* 1987;26:470-2.
- 4 Department of Health and Social Security. *Diagnosis of child sexual abuse: guidance for doctors*. London: HMSO, 1988:20.

(Accepted 28 December 1988)

## Parasuicide and general elections

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*Br Med J* 1989;298:803-4

Evidence of a reduction in admissions to hospital after parasuicide (non-fatal deliberate self harm) during and after the finals of four successive World Cup football competitions<sup>1</sup> prompted us to investigate another recurrent national event—namely, general elections. Both parasuicide and electoral voting are related to class. During 1980-2 in Edinburgh the relative risk for parasuicide in men in social class V compared with classes I and II was 12.2, with less than 10% of parasuicides among men occurring in the third of men in the top two social classes.<sup>2</sup> Voting and allegiance to a political party are also associated with social class; for instance, in 1983, 14% of professional and managerial groups supported the Labour party compared with 40% of the working class.<sup>3</sup>

Given these associations, we thought that parasuicidal behaviour might be influenced by the outcome of a general election. As parasuicide is more common among people who traditionally support the Labour party we hypothesised that a Labour victory at the polls would lead to a reduction in parasuicide whereas a Conservative victory would lead to an increase.

### Patients, methods, and results

Information about patients treated in hospital after parasuicide has been systematically collected for 20 years in the Edinburgh area, providing data on a consistent 90% of admissions to the regional poisoning

treatment centre, which manages all cases of self poisoning presenting to hospitals in the area. Subjects were restricted to patients aged 16 and over who were normally resident within Edinburgh (71% of the total). The six general elections from 1970 were examined and admissions aggregated into six consecutive periods of four weeks, covering 12 weeks either side of polling day.

The average proportion of cases occurring in each period in the four adjacent years (three for the 1987 election) was used to calculate the expected number of cases in each period before and after the elections. The table gives the observed and expected numbers. The difference from expected was calculated in each period for Labour and Conservative victories with 95% confidence intervals to estimate precision.

No significant change was found in any period before polling day. During the four weeks after the election there were striking changes in the frequency of parasuicide in the directions predicted by the hypothesis. The change was greater after Conservative victories but more sustained after Labour victories, when the reduced frequency remained in the second period. The trend was reversed during weeks eight to 12.

### Comment

These results support our hypothesis that the election of a Labour government is associated with reduced numbers of parasuicides whereas the election of a Conservative government is followed by increased numbers of parasuicides. The effect is brief; it is maximal in the month immediately after the general election, but over three months the changes all but

Numbers of men and women admitted to hospital after parasuicide and mean difference from expected values for Conservative and Labour victories

Winning party	Weeks before general election			Weeks after general election			Yearly total
	12-8	8-4	4-0	0-4	4-8	8-12	
<i>Observed (expected) numbers of men and women admitted after parasuicide</i>							
1970; Conservative	65 (69)	62 (67)	65 (69)	80 (74)	79 (70)	60 (72)	916
1974 (Feb); Labour	93 (85)	105 (87)	104 (97)	86 (88)	77 (96)	117 (101)	1239
1974 (Oct); Labour	102 (102)	95 (94)	77 (96)	76 (101)	85 (92)	93 (82)	1239
1979; Conservative	88 (87)	122 (86)	85 (87)	93 (86)	89 (89)	74 (86)	1148
1983; Conservative	81 (75)	76 (87)	83 (94)	109 (77)	92 (95)	82 (95)	1093
1987; Conservative	80 (86)	73 (86)	88 (86)	102 (76)	96 (92)	94 (82)	1120
<i>Mean (%) difference between observed and expected numbers (95% confidence intervals)</i>							
Conservative	-1 (-12 to 10)	2 (-9 to 13)	-4 (-15 to 6)	23 (11 to 35)	3 (-8 to 14)	-7 (-18 to 3)	
Labour	4 (-10 to 19)	10 (-5 to 26)	-6 (-20 to 7)	-14 (-27 to -1)	-14 (-27 to -1)	15 (0 to 30)	