stress on intrauterine growth is small compared with that of smoking. The provision of social support is not in itself likely to improve outcome in terms of fetal growth. If unrestricted fetal growth is to be achieved pregnant women should stop smoking. The effects of alcohol on fetal growth in those who smoke require further investigation, but for non-smokers there is little need to be concerned that intake within the range found in our study is harmful. Finally, we emphasise that our results apply only to fetal growth expressed as a continuous variable and should not be extrapolated freely to low birth weight or to other fetal outcomes such as mortality, congenital malformation, and preterm delivery. Possibly stress factors have more influence on gestational age, which the present analysis was not designed to detect.

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# Methotrexate dosage in patients aged over 50 with psoriasis

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Methotrexate has been used for over 20 years to treat severe psoriasis that cannot be adequately controlled by other means. The recommended dose is 10-25 mg orally once a week.[1] The drug is well absorbed and is excreted mainly in the urine. It inhibits dihydrofolate reductase, and its most dangerous side effect is myelosuppression, which is partly dose related. We observed that psoriasis in elderly patients could be controlled with less than the recommended dose and investigated some of the factors associated with the dose needed.

## Patients, methods, and results

We identified 23 patients aged over 50 who were treating their psoriasis with methotrexate. All were taking the drug because their psoriasis could not be adequately controlled by topical treatment, etretinate, or psoralens and ultraviolet A. The minimum therapeutic dose of methotrexate was established in all patients by reducing their weekly dose until their disease relapsed. We then increased the dose at intervals of one or two months until the psoriasis was controlled to the patient's satisfaction. The patient's age, weight, height, and concomitant drug treatment were noted. Venous blood was taken to measure haemoglobin concentration, mean corpuscular volume, white cell count, platelet count, and plasma urea and creatinine concentrations. The predicted creatinine clearance was then calculated[3]:

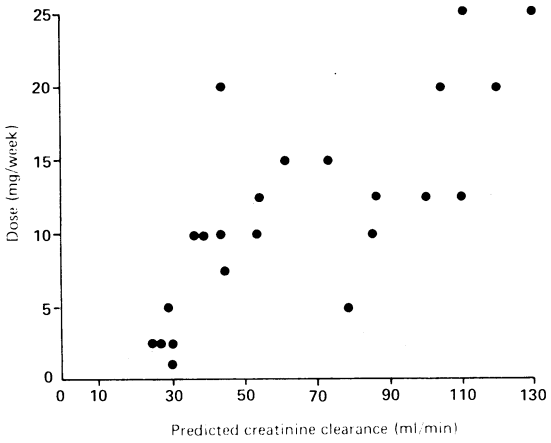
$$\text{Predicted creatinine clearance} = \frac{(140-\text{age})\times(\text{weight in kg})\times(1{\cdot}23 \text{ for men})}{\text{Serum creatinine in } \mu\text{mol/l}}$$

The data were analysed with Pearson's correlation and linear regression. Fourteen patients were men and nine women. Their age ranged from 50 to 93, weight from 43 to 110 kg, and plasma creatinine concentration from 56 to 139 μmol/l.

A significant correlation was found between the minimum therapeutic dose of methotrexate and both predicted creatinine clearance ($r=0{\cdot}76$, $p<0{\cdot}001$) (figure) and age ($r=-0{\cdot}74$, $p<0{\cdot}001$). The relation between dose and predicted creatinine clearance was shown by the linear regression equation:

$$\text{Dose} = 1{\cdot}25 + (0{\cdot}157 \times \text{predicted creatinine clearance})$$

Age and predicted creatinine clearance are clearly related, and putting age into the prediction equation




*Weekly therapeutic dose of methotrexate plotted against predicted creatinine clearance ($r=0{\cdot}76$, $p<0{\cdot}001$). Dose$=1{\cdot}25+(0{\cdot}157\times$ predicted creatinine clearance)*

resulted in minimal improvement in the association $F_{1,20}=2{\cdot}4$, $p>0{\cdot}01$).

### 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.[1] 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,[4] and we believe that the progressive deterioration in creatinine clearance associated with the natural aging process is the most likely explanation of our findings.[5]

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.

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# 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.[1] Although a study has been conducted at a specialist centre,[2] 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.[1] 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 | | | | | |
|---|---|---|---|---|---|---|---|
| | | <6 Months | 6-23 Months | 2-4 Years | 5-9 Years | ≥10 Years | Total |
| 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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