

9.77 (5.20) and 5.57 (4.05) ($t=2.18$; $p<0.05$). A significant inverse correlation was found between the amount of tobacco used daily and the number of years preceding the onset of proteinuria in the uraemic patients ($n=18$; $r=0.47$; $p<0.05$) and controls ($n=7$; $r=0.82$; $p<0.01$). In the control group smokers more often than non-smokers had renal lesions (table).

Comment

In our series the proportion of tobacco users was not the only difference between the uraemic and control groups. The lifetime consumption of tobacco was significantly less in the controls than in the uraemic group and smoking as well as ex-smoking controls presented more signs of renal disorder than did controls who had never smoked. Smokers, whether controls or uraemic subjects, had an earlier onset of proteinuria (especially those with a large daily consumption of tobacco) than non-smokers. The duration of diabetes appeared to be of minor importance for the development of end stage diabetic nephropathy.

Several factors seem to be responsible for the evolution of diabetic angiopathy and our findings suggest that one of the most important is smoking. Tobacco use in diabetics has been proposed as a trigger for progression from background to proliferative retinopathy and also from incipient to overt nephropathy.^{1,3} Our study supports this.

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Visual analogue scores and urinary incontinence

Visual analogue scales have been reported to be valuable in diagnosing urinary incontinence in women. Parkin and Davies, in a study of 35 incontinent women, found a distinct difference between scores in patients with detrusor instability and those in patients with genuine stress incontinence.¹ We assessed this technique in a larger group of women.

Patients, methods, and results

One hundred and ten consecutive women were asked to indicate the severity of their symptoms of incontinence on a 10 cm analogue scale. This was done before a history was taken and before patients were examined. The mark was measured to the nearest millimetre from 0 to 100. Urodynamic testing was then performed, which included supine and provocative cystometry and urethral pressure measurements at rest and during stress. In this study all definitions and units conform to standards proposed by the International Continence Society unless otherwise stated.

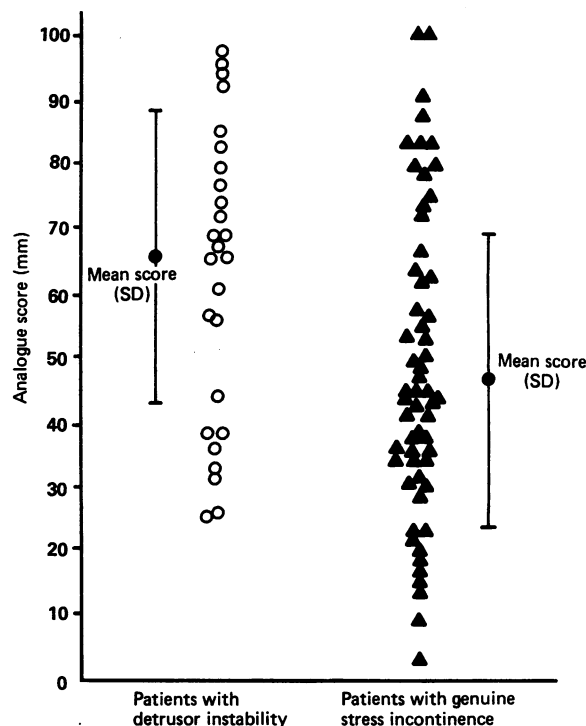
From the 110 patients seen we compared the visual analogue scores of 58 patients with a diagnosis of genuine stress incontinence with the scores of 26 patients with detrusor instability. The figure shows the results. The two groups were well matched for age and parity. The mean (SD) analogue score was 64 (23) for patients with detrusor instability and 49 (23) for patients with genuine stress incontinence, a significant difference ($p<0.01$), as assessed by Student's *t* test. Despite this, however, the area of overlap was large, and we could not show any clinically useful separation of the two groups. In the group of 26 patients with detrusor instability seven (27%) had scores of 40 mm or below. Of 58 patients with genuine stress incontinence, 36 (62%) had scores above 40 mm.

As part of this study we also assessed quantitative urine loss using a one hour perineal pad test.² There was no correlation between analogue scores and urine loss measured using this technique (unpublished findings).

Comment

Visual analogue scales are important in the subjective measurement of pain.³ Their use in patients with urinary incontinence is novel, and it has

been suggested that they might be useful in centres where urodynamic facilities are not available. The proposition that the scores might be used to distinguish detrusor instability and genuine stress incontinence was based on the fact that all those in the detrusor instability group scored over 40 mm, while very few of the patients with a final diagnosis of genuine stress incontinence did so.¹ We could not, however, show any clinically useful separation. Obviously, a clear separation of the two groups on the basis of the



Visual analogue scores related to final diagnosis.

scores is essential if the scale is to be used as a diagnostic test. If we intend to use it as a screening procedure it should not only be inexpensive and simple to perform, which it clearly is, but also have a reasonable degree of sensitivity and specificity, which it clearly does not. We are particularly anxious about the use of such screening in patients with detrusor instability and low scores, who would be misdiagnosed as having genuine stress incontinence and treated surgically. In our study over a quarter of the group with detrusor instability had scores below 40 mm.

The difference in the groups' scores does not seem to be caused by the fact that the degree of wetness is more severe in patients with detrusor instability (as assessed by the one hour pad test); it is more likely to be due to the subjective differences in the quality of the symptoms associated with the two problems or to differences in the perception of such symptoms, as it is well known that there are clear differences in the psychological profiles of the two groups.⁴

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