and sensitivity patterns against 11 antibiotics. Fifty per cent inhibitory concentrations (IC_{50}) were identical for both ampicillin and mecillinam. Serotyping was not done.

Comment

The complication rate of suprapubic bladder puncture is low. Local haematomas in the abdominal wall are occasionally reported.¹ Microscopic haematuria and fever are usually transient and without clinical significance,² and suprapubic abscesses seem to be extremely rare. Osteomyelitis of the pubic bone after urological surgery is rarely reported,³ and osteomyelitis after suprapubic bladder puncture seems never to have been reported. Even though serotyping was not done the biochemical characteristics and antibiotic sensitivity pattern of the bacterial isolates strongly implicate the urinary tract as the source of the *E coli* isolated from the pubic bone. Most likely minute quantities of infected urine were inoculated in the periosteum when the puncture needle was withdrawn. Bacteraemias after cystoscopy are not uncommon, but haematological spread to the pubic bone in an otherwise healthy person seems unlikely. In our case bacteraemia with subsequent trapping of the bacteria in the periosteum might have occurred. In any case the development of inflammation was most probably related to the periosteal lesion. The short interval between the puncture and the clinical and radiological signs of osteomyelitis also favours this view.

Suprapubic bladder puncture secures uncontaminated urine specimens and is the best method in the diagnosis of urinary tract infections. Our case shows that serious complications can be encountered if the technique is wrong. By adhering to the recognised procedure such complications can be avoided.

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Trial of doxantrazole in asthma

Sodium cromoglycate has been of benefit to patients with asthma.¹ Several oral antiallergic compounds possessing many of the properties of cromoglycate in vitro have recently been synthesised. These could be of benefit to patients unable to use an inhaler effectively. One of these, doxantrazole, was shown to inhibit the acute bronchoconstrictor response to inhaled allergen in atopic asthmatic subjects,² though this has not been confirmed.³ We report a longer-term comparison of doxantrazole, cromoglycate, and placebo.

Patients, methods, and results

Fourteen patients (eight men and six women) aged 22-62 years were studied. All had asthma of at least two years' duration, an FEV_1 above 1 litre, positive skin tests, and more than a 10% improvement in FEV_1 after salbutamol. All had had symptomatic relief from cromoglycate and had stable asthma without seasonal fluctuation. Patients taking corticosteroids by mouth were excluded but five continued regularly to inhale them. Initial assessment included the best of three FEV_1 and peak expiratory flow rate (PEFR) measurements. Patients filled in a diary card recording daily symptoms, bronchodilator usage, and the best of three PEFR readings morning and evening. After a two-week run-in period to confirm that PEFR and symptoms were reasonably stable, they stopped cromoglycate and received each of the following treatment regimens double blind for one month each in random order: (1) doxantrazole tablets 200 mg thrice daily and placebo cromoglycate (lactose) four times a day, (2) placebo doxantrazole tablets (dicalcium phosphate) thrice daily and cromoglycate 20 mg four times a day, (3) placebo doxantrazole tablets thrice daily and placebo cromoglycate four times a day. They attended every two weeks for spirometry, PEFR, and blood tests and were questioned about side effects and treatment preference. If patients deteriorated and had to be withdrawn they were treated as necessary and allowed to continue with the next treatment period once they had returned to their previous stable baseline for two weeks.

There were no significant side effects or haematological or biochemical changes with any drug. Eleven patients completed all treatment periods, two withdrew during doxantrazole, and one during both doxantrazole and placebo month. Pulmonary function tests showed no statistically significant difference for any treatment period (table). Bronchodilator usage was less during the

Mean results during treatment with doxantrazole (dox), cromoglycate (SCG), and placebo

Measurement	When measured	Dox	SCG	Placebo	Significance
PEFR { am	Mean	317	362	347	NS
	Last				
FEV ₁ { pm	2 weeks	373	397	389	NS
	2 Weeks	2.2	2.4	2.3	NS
	4 Weeks	2.5	2.4	2.1	NS
Bronchodilator usage (puffs/day)	Last	5.0	3.8	4.7	Dox v SCG* P<0.05
Patients withdrawn	2 weeks	3	0	1	
Patients' preference		1	7	2	(P<0.1)+

*Parametric analysis of variance.

+ χ^2 test.

cromoglycate month ($P<0.05$) (dox v SCG). Symptom scores showed no significant difference apart from the nocturnal asthma score, which was higher for doxantrazole than cromoglycate. Four patients noticed no difference in any treatment period, seven preferred cromoglycate, two placebo, and one doxantrazole ($P<0.1$).

Comment

This study failed to show any benefit from doxantrazole in this group of 14 asthmatic patients. There was some evidence of a small response to cromoglycate in that PEF rates tended to be higher, patient preference greater, and bronchodilator usage lower, though the individual differences were small and of borderline significance. We have therefore studied a group of patients with only a small response to cromoglycate under the conditions of this study. They were selected, however, as being those most likely to be cromoglycate responders from a large pool of adult asthmatic patients in Southampton. In previous studies of adult asthma benefit has usually been seen in respect of patients' preference or reduction in other treatment rather than in improved pulmonary function. The response to each drug was assessed in several ways—withdrawal from the study, daily PEFR, fortnightly FEV_1 , daily inhaler usage and patient preference. Assessment is difficult since improvement may show itself in different ways: some patients improve pulmonary function while not changing inhaler usage, others show no change in pulmonary function but use less bronchodilator. Conventional analysis of any one index may underestimate the value of a drug, a problem common to most longer-term studies in asthma. Doxantrazole has shown considerable antiallergic activity in animals and in-vitro experiments with passively sensitised chopped human lung.⁴ An initial study showed some protection for asthmatic patients after acute antigen challenge⁵ but the results were not confirmed in a subsequent study³ nor in exercise-induced asthma.⁵ The reason for the disappointing results in man after the early promise from laboratory and animal studies is not clear.

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