Parasites found on animal contacts of patients with unexplained prurigo, and the response to treatment

Ectoparasite	No of animals	No of patients	No of patients cured after treatment of animal	No of patients cured after dermatological treatment
<i>Cheyletiella yasguri</i>	2	3	3	
<i>Sarcoptes scabiei canis</i>	2	3	3	
Fleas	60	55	44	4
None	79	50		14
Total	143	111	50	18

to animal mites were cured with no treatment except extermination of the ectoparasites, as were 44 of the 55 patients exposed to fleas (table). In four patients exposed to fleas human scabies had been diagnosed and cured. Of 50 patients not exposed to animal ectoparasites, 14 had recovered: five after treatment for scabies, one after extermination of bedbugs in her home, and eight without treatment.

Comment

Apart from 10 patients with subsequently diagnosed human scabies or cimicosis, 57 out of 101 patients with unexplained prurigo were shown, after veterinary examination of their pets, to have been exposed to skin pathogens. Fifty of these patients (88%) were cured within one month by ridding their animals of mites and fleas. Even if some patients had consulted a vet, in many the prurigo would have persisted without veterinary intervention.

When prurigo is not explained after medical investigation a search for ectoparasites on animal contacts is a cheap diagnostic aid, which may provide the clue to effective treatment.

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Objective assessment of treatment in severe angina

Conventional trials of antianginal treatment rely on the patients' subjective reports of chest pain and how often they consume glyceryl trinitrate. While relief of pain is all-important, objective measurements increase the validity of the results and help to quantify improvement. Patients with frequent angina often have episodes of ST-segment depression without pain as shown by 24-hour ambulatory monitoring.¹ If these episodes are due to myocardial ischaemia, however produced, the effects of specific treatment on them are of interest.² Exercise precordial mapping provides a reliable and reproducible measure of the degree of myocardial ischaemia at a given work load,³ and 24-hour ambulatory monitoring of the ECG provides physiological information about the frequency, severity, and time course of ST-segment change.¹

Patients, methods, and results

We studied six men aged 36-58. All had severe angina at least once daily with strongly positive exercise tests. All underwent four treatment periods

of one week each, receiving (1) glyceryl trinitrate alone (control), (2) propranolol 120 mg four times daily, (3) nifedipine 20 mg three times daily, and (4) propranolol plus nifedipine. The order of treatment varied but we did not attempt randomisation. At the end of each period the patient underwent 16-point precordial mapping after exercising on a bicycle ergometer to the same work load as that achieved in the control period. Full details of this method have been reported.³ The position of maximal exercise-induced ST-segment depression on the precordium was chosen for recording the 24-hour ambulatory tape,¹ using the Oxford Medilog recorder and Reynolds pathfinder high-speed analyser. Patients were encouraged to return to their normal daily activities and to indicate angina by pressing the "event" button of the recorder.

The exercise maps were analysed by counting the number of positions showing significant ST depression (area of ischaemia) and summing the number of millimetres of ST depression at all these points (Σ ST). The 24-hour ECG tapes were analysed by counting the number of episodes of significant ST depression with and without recorded pain. The maximum heart rate achieved, the degree of ST depression, and the duration of the episodes were also noted. Significant differences were sought using Friedman's two-way non-parametric analysis of variance.

The table shows the results for each treatment regimen. The combination

Measurements of ischaemia in six patients calculated from precordial mapping and 24-hour ECG recording

Treatment	Area of ischaemia*	Σ ST†	No of episodes of painful ST depression/24 h	No of episodes of pain-free ST depression/24 h	Total No of episodes of ST depression/24 h
Glyceryl trinitrate	39	54	17	30	47
Propranolol	33	37	9	11	20
Nifedipine	42	56	7	16	23
Propranolol + Nifedipine	11	11	2	8	10

*Number of positions showing significant ST depression.

†Number of millimetres of ST depression in area of ischaemia.

of drugs proved significantly superior ($P < 0.01$) to either drug alone and to glyceryl trinitrate as measured by the area of ischaemia and Σ ST. All three treatments proved superior to glyceryl trinitrate ($P < 0.01$) in reducing the total number of episodes of ST depression over 24 hours, but only the combination reduced the numbers of both pain-free and painful episodes significantly.

Comment

This pilot study has shown the feasibility of using objective, non-invasive measures of ischaemia in trials of antianginal treatment. Its design (short, non-randomised treatment periods, open structure, no placebo control) does not allow definite conclusions to be drawn about the efficacy of the treatments, though the objective evidence strongly supports a synergistic effect between propranolol and nifedipine. The maximum heart rate achieved on exercise was lower when patients received propranolol than nifedipine. The heart rate was intermediate when the drugs were combined. Pain-free ST-segment depression, whatever its mechanism, was significantly reduced by the combination of drugs. Nocturnal ST-segment changes were also reduced.

These methods provide an objective method of assessing antianginal treatment and could profitably be used in a larger controlled trial of this potentially useful combination of drugs.

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