conditions. Thus a tailing off in the rate of patient accrual is often the first sign that investigators have lost enthusiasm for the trial and a progress report is urgently called for. A change in the rate of patient withdrawal from the study is a warning that entrance criteria have been relaxed to admit patients who would have been deemed unsuitable before or that there has been a systematic change in the assessment of how severe the side effects of treatment are. Other indications of a subtle alteration in the type of patient admitted to the study are change in the distribution of baseline patient characteristics—such as age at diagnosis, tumour stage, histology—or in the level of response to all treatments. Change in the overall level of response could also be accounted for by a drift in the measurement of response. A change in the level of response to a particular treatment is equally alarming. Possible explanations are a leak in the assignment scheme so that selection bias operates, a change in drug formulation (batch number, for example) or biased assessment because the observer is no longer blind to the assigned treatment.

The execution of a clinical trial is the most exacting phase for

doctors; it should not be a period of quiescence for the statistician.

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Sheila M Gore, MA, is a statistician in the MRC Biostatistics Unit, Medical Research Council Centre, Hills Road, Cambridge CB2 2QH.

No reprints will be available from the author.

Lesson of the Week

Dental health in patients susceptible to infective endocarditis

W P HOLBROOK, R F WILLEY, T R D SHAW

Despite the availability of antibiotics infective endocarditis is still a dangerous disease. The mortality is about 30%, and there is considerable morbidity owing to valve destruction, systemic embolism, and renal impairment.¹ For many years infective endocarditis has been the target of preventive measures based on the strong link between endocarditis and dental status. Two preventive approaches have been recommended²: (1) giving prophylactic antibiotics to susceptible patients before performing dental procedures that are known to produce a bacteraemia (also before surgery or before using instruments in the upper respiratory, genitourinary, and lower gastrointestinal tracts); (2) maintaining good dental health in patients who are vulnerable to endocarditis.

To study the extent to which the second recommendation has been successfully put into practice we examined the teeth of a group of patients attending a cardiac clinic.

Patients and methods

One hundred patients (29 men and 71 women) underwent a dental examination. They were a consecutive series of patients who had a cardiac lesion that was susceptible to endocarditis.² Their ages ranged from 20 to 76 years, mean 50.8 years (SD 12.9). Sixty-five patients had mitral or aortic valvular disease,

Although good dental hygiene will help to prevent infective endocarditis, many patients with cardiac lesions susceptible to infection have poor dental health

or both; 34 had a prosthetic valve; and one patient had pulmonary valve stenosis. Six patients had a history of endocarditis. Dental examinations were conducted by WPH. The examination consisted of a mirror and probe survey of the teeth and soft tissues.

Results

The results of the dental examination are given in the table. None of the edentulous patients had attended a dentist in the preceding year, but 28 had ill-fitting dentures and 15 had disease of the mouth that could produce bacteraemia. Dental infection was common in the dentate patients: 25 (60%) had either chronic periodontal inflammation or an abscess, or both. Only 17 of the 42 patients with teeth could be regarded as having satisfactory dental health. In this group of dentate patients 17 (77%) out of 22 without caries had seen a dentist in the past year, while only seven (35%) of the 20 patients with caries had seen their dentist during this period ($p < 0.05$, χ^2 test). Only nine patients with teeth knew of their special need to maintain good dental health.

Central Microbiological Laboratory and Department of Cardiology, Western General Hospital, Edinburgh EH4 2XU

W P HOLBROOK, BDS, MRCPATH, senior registrar

R F WILLEY, MB, MRCP, registrar

T R D SHAW, MB, MRCP, senior registrar

Results of dental examination in 58 edentulous and 42 dentate patients

Edentulous patients	No
Well-fitting dentures	30
Ill-fitting dentures	28
Ulcer under denture	7 (12%)
Denture stomatitis	8 (14%)
Dentate patients	No
No dental disease	17
Dental disease present	25
Chronic periodontitis	24 (57%)
Caries	20 (48%)
Retained roots visible	8 (19%)
Dental abscess	5 (12%)
Periodontal abscess	1 (2%)

Discussion

The dental health of the patients was poor, and the prevalence of active oral infection was alarming. Similar findings have been reported from London by Thom and Howe,³ who noted that only 14 out of 50 patients with cardiac disease could be considered dentally fit. Clearly the recommendation that patients who are susceptible to endocarditis should maintain a high standard of dental health was not being adequately fulfilled. The "viridans streptococci" are still by far the commonest organism in medical endocarditis.⁴ Dental treatment precedes endocarditis in only one-third of cases,⁴ and oral infection of the

mouth is therefore likely to be an important cause of endocarditis in the other two-thirds.

We suggest that greater emphasis is given to maintaining good dental health to prevent endocarditis. Arrangements should be made for patients to be seen by a dentist at regular intervals. The present common use of intramuscular injection of prophylactic antibiotics must deter some patients from attending for regular dental care. We agree with Oakley and Somerville⁵ that there is a need for a simple oral regimen, and current regulations should be changed to allow dentists to be refunded the cost of the prophylactic antibiotics provided at their surgery.

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Can yellow fever vaccine given early in pregnancy cause fetal abnormalities?

No one knows the answer to this question. There is no positive evidence that vaccination in pregnancy does damage the fetus, but this is not the same thing as saying that vaccination cannot damage the fetus. Although not recommended by the manufacturers of the vaccine (Burroughs Wellcome) many women have been safely vaccinated in pregnancy with no adverse effects on the fetus. It is often much better to be vaccinated against yellow fever than take the risk of acquiring infection naturally. Vaccination should, however, be avoided in the first trimester.

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What are the effects and treatment of psoriasis of the conjunctiva?

Psoriasis occasionally causes ocular complications, which vary considerably in type and severity.¹ They tend to appear and disappear with the cutaneous eruptions, which need not affect the skin of the eyelid for the eye to be affected. Rarely, plaques from the lid spread over into the conjunctiva, or appear separately on the conjunctiva. Healing may be complicated by symblepharon, trichiasis, and keratoconjunctivitis sicca. More common is a non-specific chronic conjunctivitis with discharge. Peripheral corneal infiltration and ulceration may occur. Initially this is a punctate epithelial keratopathy, which may progress to ulceration and superficial vascularisation that heals with corneal scarring. The corneal lesion is usually bilateral. Uveitis in the form of acute iridocyclitis can occur with psoriatic arthritis but is not associated with psoriasis lacking arthritis.² Some patients with psoriatic arthritis also develop ankylosing spondylitis, which is itself associated with iritis.³ Psoriatic arthritis and Reiter's syndrome may be difficult to distinguish and may overlap in some patients.³ Ulcerative colitis occurs more often in patients with psoriatic arthritis than would be expected by chance³ and is associated with conjunctivitis and episcleritis,⁴ and with iritis, when the tissue type HLA B27 is a likely finding. Psoriasis of the conjunctiva is exceptionally rare, and the possibility of squamous metaplasia of the conjunctiva, rather than true psoriatic plaques, should be considered, as should a conjunctival biopsy, which is easily performed. Squamous metaplasia may be secondary to conjunctivitis sicca.

There is no specific treatment for the conjunctivitis of psoriasis. Corticosteroid eye drops help but should not be continued for longer than two to three weeks because of the risk of causing glaucoma in

susceptible patients. The other complication of eye treatment with steroids is cataract, which is not seen until after treatment has been continued for a full year. If there is any conjunctival roughness, due to plaques or conjunctivitis sicca, symptomatic relief will be obtained with artificial tear drops, such as hydroxypropyl methylcellulose, which should be used liberally, without fear of side effects. Secondary bacterial infection may complicate the initial stages of conjunctivitis and so the corticosteroid should be given with an antibiotic—that is, betamethasone together with neomycin—and this should be used also in cases of corneal ulceration. The treatment of psoriasis itself should not cause any ocular complications. Dithranol cream if accidentally introduced into the eye causes an acute conjunctivitis and superficial keratitis. A similar result may occur if the eye were accidentally exposed to ultraviolet light during treatment, or to sunlight if a photosensitising drug had been given. There is some experimental evidence that near ultraviolet light can be cataractogenic, but this has not so far been shown in man. Clearly ultraviolet treatment needs to be administered with the utmost care in eye protection.

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What are the symptoms of and first-aid treatment for the cyanide fumes given off by polystyrene furniture when it burns?

The signs and symptoms of cyanide poisoning are: odour of bitter almonds; rapid and deep respiration becoming slow and gasping; rapid pulse becoming slow and imperceptible; epigastric pain, nausea, and vomiting; and cyanosis, convulsions, and coma. The most important rule is: *do not attempt to perform mouth-to-mouth respiration*. Treatment is as follows. (1) Perform positive pressure ventilation with Ambu bag (or similar). Give oxygen and amyl nitrite inhalation for 10 seconds every three minutes. (2) With 20-ml syringe and No 1 needle withdraw 20 ml venous blood for analysis, and inject intravenously 20 ml (300 mg) cobalt edetate (Kelocyanor) at 1 ml/s. (3) If no sign of recovery after two minutes repeat (2). (4) If no sign of improvement after five minutes repeat (2). (5) If no sign of improvement inject intravenously 10 ml 3% sodium nitrite over three to five minutes and inject intravenously 25 ml 50% sodium thiosulphate over three to five minutes. (6) If possible undertake gastric lavage with 2% sodium bicarbonate and leave 300 ml of 25% sodium thiosulphate in the stomach.