This was confirmed when he was no longer exposed to the chemical and his symptoms improved.

People susceptible to malignant hyperthermia can lead a normal life provided that they take certain precautions, which include avoiding inappropriate anaesthetic agents and neuroleptic drugs and not taking severe exercise in hot conditions. Avoiding occupational exposure to halogenated hydrocarbons such as bromochlorodifluoromethane should be added to the list as these may cause rhabdomyolysis.

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(Accepted 2 February 1988)

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Are routine superficial cultures worth while in neonatal practice?

Financial prudence and the optimum use of scarce resources are assuming increasing importance in medical management. In this context we assessed the clinical value of superficial bacterial cultures taken either routinely on admission of infants to a paediatric unit or as part of a diagnostic investigation to exclude sepsis.

Patients, methods, and results

We reviewed the results of superficial cultures performed for all neonates (age 4-43 days) admitted from home to an infant unit through the outpatient department over six months. We also reviewed the results of superficial and central cultures performed to investigate suspected sepsis in neonatal inpatients (term babies aged up to 2 weeks and preterm babies until age at discharge) over 12 months.

Of 1050 superficial bacterial cultures performed for 273 infants admitted from home, 150 (14%) of 29 throat swabs, 72 nasal swabs, and 49 rectal swabs, yielded pathogenic organisms. *Staphylococcus aureus* (62 nasal swabs) and *Escherichia coli* (12 throat swabs and 14 rectal swabs) were the most common organisms. There was little correlation between results and site: *S aureus* was isolated from several superficial sites in three cases, and *E coli* from throat and nasal swabs but not from a rectal swab in one. In 15 cases the results on culture of routine rectal swabs led to the infants being isolated. No other routine culture performed without a clinical indication affected management.

In all, 241 microbiological examinations to confirm sepsis were performed for 225 patients over 12 months; 1142 cultures (776 superficial, 241 of blood, and 125 of cerebrospinal fluid) were obtained. Organisms were isolated from 51 of the blood cultures, but low colony counts of *S albus* (14 cultures) and *S aureus* (one) suggested possible contamination.

The same organism was grown from superficial and blood cultures in four cases and from blood cultures and rectal swabs in two: in one case *S aureus* was grown from a nasal swab and blood culture, and in one *Proteus mirabilis* was grown from a throat swab and blood culture. Overall the results of superficial cultures agreed with those of blood cultures in four but not in 19 of the 36 infants with septicaemia.

Swabs of the ear or eye were not taken routinely to investigate sepsis, but *S albus* was grown from ear swabs from two infants with septicaemia caused by this organism and *Listeria monocytogenes* was grown from swabs of eyes and ears from an infant with listeria septicaemia.

Five cases of bacterial meningitis were diagnosed from the 125 cultures of cerebrospinal fluid; the findings in 10 other cases suggested viral meningitis. A blood culture and a rectal swab from an infant with *E coli* meningitis also yielded *E coli*, but in the four other infants with bacterial meningitis the results as culture of the superficial swab did not correlate with those from the cerebrospinal fluid.

Comment

The results of culturing superficial swabs did not correlate well with the infecting organism. Gooch and Britt in a study of 9000 newborn babies found that 2·4% of the colonised group became infected as opposed to 0·3% of the non-colonised group.[1] Our results obtained from superficial cultures and blood cultures made simultaneously did not confirm the value of superficial cultures. In only three (8%) of the 36 infants with septicaemia did the results of the superficial cultures alter management. If management had been based on the results of superficial cultures inappropriate antibiotics might have been selected. The only possible value of routine superficial swabs taken on admission was in identifying infants who carried pathogenic organisms in their bowel and required isolation.

Superficial cultures may identify the local bacterial flora in infants and help in selecting antibiotics.[2,3] In practice, treatment is started on the basis of clinical indications at the initial examination and reviewed when the results of cultures of blood or cerebrospinal fluid, or both, become available. The clinical condition of the child largely determines whether antibiotics are used and so limits the usefulness of superficial cultures. Our study further suggests that such cultures are of limited value as a routine procedure when outpatients are admitted.

In an era of financial austerity clinicians should satisfy themselves that the information obtained from routine superficial cultures of bacteria is worth while.

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(Accepted 2 February 1988)

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Anorexia nervosa in a 70 year old man

We report on a 70 year old man with a 40 year history of anorexia nervosa dating from the time he spent as a prisoner of war under the Japanese.

Case report

A 69 year old man presented with abdominal pain. He had needed a partial gastrectomy six years previously for a gastric ulcer. A perforated stomal ulcer was found at laparotomy and a Polya gastrectomy done. Postoperatively he refused to eat or drink and had difficulty with mobilisation. He weighed 31 kg. Neurological examination showed generalised wasting and weakness of his muscles, especially proximally. Reflexes and sensation were normal. Muscle biopsy showed considerable atrophy of type two muscle fibres as seen with disuse and in cachexia. An electromyogram showed a pattern of chronic denervation, and electrodiagnostic studies showed severe sensorimotor neuropathy. Routine biochemical and haematological measurements including creatine kinase were normal.

A year later he was referred again because of his low weight and immobility. He weighed 31 kg and could not sit up in bed or stand unaided. He admitted that his weight had been low and that he had restricted his food intake for years. During the second world war he had been a prisoner of war under the Japanese and had worked on the construction of the Burma to Thailand railway. He avoided talking about his experiences and gave the impression that his captivity had had a profound effect on him. After the war he had worked as a storeman and packer until his retirement at the age of 49. Since his captivity he had been a poor eater. There was no history of vomiting or bulimia. He had married in 1946 but did not have any children. He and his wife were reluctant to talk about their sexual relationship. There was no family history of anorexia nervosa, depression, or any other psychiatric illness.

His serum zinc, iron, phosphate, protein, and albumin concentrations were low. Alkaline phosphatase and γ-glutamyltransferase activities were raised. Other biochemical and haematological variables were normal. Barium studies confirmed an almost total gastrectomy, but no other abnormality was seen. Nasogastric feeding was started. Fifteen days later he weighed 35·2 kg. The next day he complained of abdominal discomfort and distension. Low pressure suction was started, but he died suddenly that night. Permission for a postmortem examination was refused.

Comment

Anorexia nervosa is an underdiagnosed disorder, especially in men. In this case considerable circumstantial evidence favoured a diagnosis of anorexia

nervosa—namely, the low body weight, the resistance to eating, the admission that this had been a chronic condition, the lack of children, and the possibility of sexual difficulties in the marriage. Our patient would have been 25 years old when the war began, and it is possible that he already had chronic anorexia. His experience as a prisoner of war may have been used retrospectively to cover up the underlying psychiatric illness.

The aetiology of anorexia nervosa remains uncertain. Important life events may act as precipitants and have been found in the backgrounds of many patients with anorexia. The physical and psychological stresses among prisoners of the Japanese during the second world war have been described.[1] The clinical signs in anorexia nervosa are due to a combination of energy and protein deficiency and could lead to severe cachexia. The predominant atrophy of type two muscle fibres seen in our patient was similar to that seen in women with anorexia nervosa and severe weight loss.[2] Neuropathy and myopathy have also been described.[3]

Anorexia nervosa is often a relapsing and remitting condition lasting for many years. Our patient is of interest as there is little information about long term outcome in anorexia nervosa.

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(Accepted 26 January 1988)

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Prosthetic valve endocarditis caused by Propionibacterium acnes

We describe a case of recurrent endocarditis in a prosthetic mitral valve caused by an unusual organism—*Propionibacterium acnes*.

Case report

A 41 year old man was admitted to hospital with suspected infective endocarditis in April 1985. Three weeks earlier he had developed symptoms of a flu like illness, with malaise and sweating episodes; these followed infection of a finger prick wound, sustained when blood had been taken for measuring prothrombin time. His doctor had prescribed cephalexin 250 mg four times a day for six days. Two days before admission he developed a swollen painful right ankle. In September 1983 he had undergone mitral valve replacement for rheumatic heart disease.

He was afebrile on admission. The prosthetic valve was functioning normally, and there were no murmurs. The only abnormal physical finding was a swollen erythematous right ankle. Three days later he developed an Osler's node on the left thumb, splinter haemorrhages, and an early diastolic murmur along the left sternal border. Endocarditis was diagnosed. Blood cultures were taken and treatment was started with intravenous ampicillin 2 g six hourly and gentamicin 80 mg eight hourly.

The results of haematological and biochemical investigations were normal, as were those of serological tests for toxoplasmosis, brucellosis, cytomegalovirus, infectious mononucleosis, and autoantibodies. An initial echocardiogram was normal; a repeat echo cardiogram 10 days later confirmed aortic incompetence but showed no vegetations. Aerobic and anaerobic blood cultures were performed by the Bactec method. A positive signal was noted in the anaerobic cultures only after two weeks' incubation, and *Propionibacterium acnes* was identified in three consecutive cultures. It was sensitive to penicillin, ampicillin, cephalosporins, and gentamicin by disc diffusion tests. Minimum bactericidal concentrations of penicillin and ampicillin were 0·06 and 0·5 mg/l respectively.

Gentamicin was given for the first two weeks, and intravenous ampicillin was continued for four weeks. Serum bactericidal titres at one hour were 1/16. He was discharged home well and told to take oral amoxycillin for a further two weeks. We have no doubt that he complied.

Five months later he returned to the outpatient clinic complaining of malaise and anorexia. The results of all investigations were normal and the echocardiogram was unchanged. Three sets of blood cultures were taken. All grew *P acnes* from the anaerobic Bactec culture after two weeks. The results of antibiotic sensitivity tests were similar to those with the previous isolates. Readmitted for treatment, he was anxious, depressed, and had malaise and anorexia but no clinical signs of endocarditis. Penicillin 2 MU four hourly, gentamicin 120 mg eight hourly, and probenecid 500 mg twice daily were prescribed. One hour serum bactericidal titre was 1/128. Treatment was changed to oral penicillin 500 mg four times daily plus probenecid after four weeks. The serum bactericidal titre was 1/64. He was discharged home well. He continued taking oral penicillin for five months. He had no recurrence of endocarditis during 18 months' follow up.

Comment

P acnes is a gram positive, non-spore forming, slow growing anaerobic diphtheroid found on the skin. Its pathogenic role in acne vulgaris is established, but it has been rarely reported to cause systemic infection except in the presence of a prosthesis.[1-3] Recently Fornaciari *et al* have described a case of *P acnes* endocarditis.[4] Our case is unusual because the probable source of infection was an infected pin prick site. The rarity of documented *P acnes* infection may be due to the lack of good laboratory anaerobic culture techniques. Prolonged culture is also essential, and in this laboratory cultures from suspected cases of endocarditis are incubated for three weeks before being discarded. Despite the organism's sensitivity to the antibiotics a six week course of treatment failed to eradicate the infection. In the presence of a prosthetic device prolonged antibiotic therapy with high serum bactericidal concentrations may be required to prevent relapse of infection.

We thank Imelda Kenny for her secretarial help.

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(Accepted 10 February 1988)

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Changing pattern of Crohn's disease in Northern Ireland

Crohn's disease may well be a new disease of the twentieth century.[1] Its incidence seems to be changing and has been described as increasing,[2] decreasing,[3] and having reached a plateau.[4] We compared the incidences of the disease in two consecutive periods of eight years (1966-81) in a numerically stable population in a circumscribed geographical region.

Patients, methods, and results

Patients with Crohn's disease were identified from histopathology records and from hospital medical records; further epidemiological information was obtained from case notes. Patients were included in the study if they fulfilled strict criteria for a diagnosis of the disease[5]—that is, if they had two or more of: a clinical history of a combination of crampy abdominal pain, diarrhoea, and weight loss; typical macroscopic findings in the gastrointestinal tract at laparotomy or endoscopy; a definite diagnosis on histological examination of a resected or biopsy specimen; and characteristic radiological findings from contrast studies of the small or large bowel. Of 817 patients in whom Crohn's disease had been provisionally diagnosed clinically, 440 (183 men and 257 women) fitted these strict criteria. Thus the male:female ratio was 1:1·40 compared with the ratio in the general population at the 1981 census of 1:1·04.

During 1966-73 the mean incidence of Crohn's disease in Northern Ireland was 1·30/100 000/year (1·13 for men and 1·46 for women), and during 1974-81 it was 2·34/100 000/year (1·81 for men and 2·85 for women). Thus from the first to the second period the incidence increased by a factor of 1·6 in men and 2·0 in women, or overall by a factor of 1·8. The number of new cases increased steadily from 1966 to 1981. The distribution of cases by age at presentation showed a peak in the third decade in both men and women, a second peak in the sixth decade in women, and a preponderance of women in all but the seventh and ninth decades.