References

1 *Department of Drugs: AMA Drug Evaluation*, 5th edn. Chicago: American Medical Association, 1983; 1478.
2 Reynolds JEF (ed) *Martindale. The Extra Pharmacopoeia*, 30th edn. London: The Pharmaceutical Press, 1993; 932.
3 Feldman MD, Behar M. A case of massive diphenhydramine abuse and withdrawal from use of the drug. *JAMA* 1986; **255:** 3119–20.
4 Glickman L. Diphenhydramine abuse and withdrawal. *JAMA* 1986; **256:** 1894.
5 Feldman MD, Behar M. In reply. *JAMA* 1986 **256:** 1894.

New antimicrobials against *Mycobacterium marinum* infection

SIR, The introduction of new antimicrobials with efficacy against atypical mycobacteria may be of relevance to the treatment of cutaneous *Mycobacterium marinum* infection (fish tank granuloma). We report the use of clarithromycin and rifabutin in a patient with fish tank granuloma who had failed to respond to other drug regimens.

A previously well 26-year-old man developed two painless, indurated lesions on the dorsum of his right little finger 2 weeks after cleaning a tropical fish tank. He had received treatment with flucloxacillin and amoxycillin-clavulanic acid before referral to the Regional Infectious Diseases Unit, where he presented 6 months after the lesions first appeared. There was no history of systemic upset. Examination revealed two circumscribed, non-tender lesions, and swelling of the right olecranon lymph node. Histology of a biopsy of one lesion revealed granulomata, and acid-fast bacilli which were subsequently identified as *M. marinum*. Treatment with trimethoprim-sulphamethoxazole was commenced, but sensitivity testing revealed resistance to this, as well as to isoniazid, rifampicin, amikacin, streptomycin and pyrazinamide. The organism was found to be sensitive to ciprofloxacin and ethambutol. Treatment with ciprofloxacin 500 mg b.d. was started, but 4 months later he developed a new lesion on the same hand. Ethambutol 600 mg daily was added to his existing therapy, but there was no improvement over the next 6 months. On further testing, the organism was found to be sensitive to clarithromycin and rifabutin. Treatment was again changed (now 21 months after the lesions first developed), to clarithromycin 500 mg daily. On this regimen, there was progressive improvement over the next 5 months, but a further change in treatment became necessary because of persistent nausea. Rifabutin 600 mg daily was prescribed in place of clarithromycin, and the clinical improvement continued. There was complete resolution of the lesions after a further 4 months of therapy (30 months after they first appeared).

Exposure to *M. marinum* is most common among individuals who keep tropical fish.[1] They occasionally develop infection of the hand or arm, and this is usually self-limiting.[1] Where treatment is necessary, excision and drainage has been advocated, but it is recognized that spread of infection to deeper tissues can occur following surgery[2] and, as a result, antimicrobial therapy is usually preferred.

A variety of drugs, including minocycline[3] and trimethoprim-sulphamethoxazole,[4] have been used with some success in the treatment of this disease, but drug resistance is variable, and combination chemotherapy may be required. Our patient did not benefit from treatment with ciprofloxacin in combination with ethambutol, in spite of the fact that sensitivity testing had indicated the organism was sensitive to both of these drugs. Clarithromycin, a new macrolide which has become established in the treatment of some atypical mycobacterial infections,[5] was of limited value in this case because it was associated with nausea, but its introduction coincided with clinical improvement. The later replacement of clarithromycin by rifabutin was followed by continued improvement, and ultimately by resolution of the patient's lesions. Rifabutin has recently been shown to be of benefit in the treatment and prophylaxis of atypical mycobacterial infection in AIDS,[6] where it has a more marked antimycobacterial effect than rifampicin,[7] but its use against *M. marinum* has not been described previously. Although it is possible that spontaneous resolution of the skin lesions may have occurred in our patient, we feel that these new antimicrobials may be of value in the treatment of *M. marinum* infection. Combination of rifabutin with clarithromycin or ethambutol may also merit a therapeutic trial in otherwise unresponsive cases.

Regional Infectious Diseases Unit, R.B.S.LAING
City Hospital, R.F.WYNN
Greenbank Drive, C.L.S.LEEN
Edinburgh EH10 5SB, U.K.

References

1 Wolinsky E. Nontuberculous mycobacteria and associated diseases. *Am Rev Respir Dis* 1979; **110:** 107–59.
2 Winter FE, Runyon EH. Prepatellar bursitis caused by *Mycobacterium marinum*. Case report, classification and review of the literature. *J Bone Joint Surg* 1965; **47A:** 375–9.
3 Loria PR. Minocycline hydrochloride treatment for atypical acid-fast infection. *Arch Dermatol* 1976; **112:** 517–19.
4 Black MM, Eykyn SJ. The successful treatment of tropical fish tank granuloma (*Mycobacterium marinum*) with cotrimoxazole. *Br J Dermatol* 1977; **97:** 689–92.
5 Dautzenberg B, Truffot C, Legris S *et al.* Activity of clarithromycin against *Mycobacterium avium* infection in patients with the acquired immunodeficiency syndrome: a controlled clinical trial. *Am Rev Respir Dis* 1991; **144:** 564–9.
6 Cohn DL, Horsburgh CR. Treatment and prophylaxis of disseminated *Mycobacterium avium* complex infection in AIDS. *Opportunistic Complications HIV* 1993; **2:** 6–12.
7 Hoffner S, Svenson SB, Hjelm U, Kallenius G. Rifabutin: antimycobacterial activity and synergism with other drugs. *Int Conf AIDS* 1992; **8:** 90 (Abstr.).

The increasing incidence of basal cell carcinoma

SIR, Skin cancer is the most common type of cancer in Western countries and Australia,[1–3] and its incidence is increasing world-wide.[4–6] Ko *et al.*[7] recently reported interesting findings

concerning the incidence of skin cancer in the North Humberside area of England. The authors found that the age-standardized incidence of basal cell carcinoma per 100,000 population in 1978 was 38·8 among men and 37·1 among women. For 1991, the corresponding figures were 115·6 and 103·7 for men and women, respectively. This corresponds to an increase of 14% per year for males, and 12% per year for females. The authors also found an equal male/female ratio (1:1). These findings correlate well with the results of our study[8] on the incidence of basal cell carcinoma in the Stockholm area. In 1971, the age-standardized incidence was 20·8 for men and 18·3 for women. In 1980 the corresponding figures were 48·8 and 44·4, respectively. The age-standardized incidence rate of basal cell carcinoma during the 10-year period between 1971 and 1980 increased 14% for men and 10% for women, annually. Overall, it increased 12% annually. We found no difference in the male/female ratio, which was equal. The study was conducted in an area of Stockholm with a population of about 320,000, and a well-known migratory pattern. The steep increase in the incidence of basal cell carcinoma in the years 1971–80 which we found in our study is in accordance with the findings of Ko *et al.* concerning the change in the incidence of skin cancer between 1978 and 1991. Thus, it seems to be a true change in the incidence of basal cell carcinoma in Europe, and the reported figures point to an alarming development in the near future. We can only agree with Ko *et al.* that skin cancer is a major health problem, and that the incidence of skin cancer is an important public health matter, which represents a challenge in preventive medicine.

Department of Dermatology and Venereology, Södersjukhuset, 118 83 Stockholm, Sweden

P.WALLBERG
E.SKOG

References

1 Rampen FJH, Neuman HAM, Kiemeney LALM. Fundamentals of skin cancer/melanoma screening campaigns. *Clin Exp Dermatol* 1992; **17**: 307–12.
2 Harvey I, Shalom D, Marks RM, Frankel SJ. Non-melanoma skin cancer. *Br Med J* 1989; **299**: 1118–20.
3 Reizner GT, Chuang T-Y, Elpern DJ *et al.* Basal cell carcinoma in Kauai, Hawaii: the highest documented incidence in the United States. *J Am Acad Dermatol* 1993; **29**: 184–9.
4 Fears TR, Scotto J. Changes in skin cancer morbidity between 1971–72 and 1977–78. *J Natl Cancer Inst* 1982; **69**: 365–70.
5 Gallagher RP, Ma B, McLean DI *et al.* Trends in basal cell carcinoma, squamous cell carcinoma, and melanoma of the skin from 1973 through 1987. *J Am Acad Dermatol* 1990; **23**: 413–21.
6 Roberts DL. Incidence of non-melanoma skin cancer in West Glamorgan, South Wales. *Br J Dermatol* 1990; **122**: 399–403.
7 Ko CB, Walton S, Keczkes K *et al.* The emerging epidemic of skin cancer. *Br J Dermatol* 1994; **130**: 269–72.
8 Wallberg P, Skog E. The incidence of basal cell carcinoma in an area of Stockholm County during the period 1971–1980. *Acta Derm Venereol (Stockh)* 1991; **71**: 134–7.

Kaposi-like acroangiodermatitis induced by a suction-socket prosthesis

SIR, Amputation stumps may be affected by many dermatological problems related to the use of conventional prostheses. These include circulatory disturbances, with hyperaemia and oedema, contact dermatitis, bacterial and fungal infections, verrucous hyperplasia, chronic ulceration and malignant neoplasia.[1] Suction-socket prostheses produce a negative pressure, which allows a closer union with the stump and a greater freedom of movement than conventional prostheses.

Kolde *et al.*[2] and Santucci *et al.*[3] reported two patients with acroangiodermatitis on above-knee amputation stumps, caused by poorly fitted suction-socket prostheses. We report two additional patients with this abnormality, whose cutaneous lesions resolved when their prostheses were changed.

Case 1. A 25-year-old man, who sustained a traumatic amputation of his left leg (at the level of the thigh) in 1987, was referred to our department in December 1992, because he had developed bluish skin lesions on the distal extremity of his stump. Since 1987 the amputation stump had been fitted with a suction-socket type of prosthesis. Examination showed several irregularly shaped, scaly, purplish-blue plaques and papules, which were more evident on the medial aspect of the lower part of the stump (Fig. 1). Discrete areas of erythema, and oedema, were also present. Replacement of the suction-socket prosthesis with one which was larger, and correctly fitted, resulted in progressive clinical improvement of the lesions.

Figure 1. Scaly, purplish-blue plaques and papules over a brownish macular area.