Answers to Dermato-venereological Quiz on pages 92-93

1. Sporotrichoid lymphocutaneous pattern. The primary inoculation site is through a minor injury or insect bite at the extremities distally, followed by appearance of skin lesions that spread linearly and proximally along lymphatic vessels.
2. Occupation and hobbies.
3. Clinical differential diagnoses include infection (mycobacterial infection, leprosy, deep fungal infection), inflammation (prurigo nodularis, discoid lupus erythematosus, hypertrophic lichen planus) and malignancy (squamous cell carcinoma, basal cell carcinoma, cutaneous lymphoma, leukaemia cutis and cutaneous metastasis).
4. Histological examination of the skin biopsy shows epidermal hyperplasia with irregular elongation of the rete ridges. There is an active chronic inflammatory infiltrate throughout the dermis. The mixed inflammatory infiltrate is composed of polymorphs and small lymphocytes. In the dermis, there are a few non-necrotising epithelioid granulomata composed of pale-staining histiocytes. There are also Langerhans' multinucleated giant histiocytes with abundant cytoplasm. Peri-neural granulomatous inflammation was absent. Ziehl Neelsen stain and Wade Fit stain showed no acid fast bacilli. Grocott and PASD stains did not demonstrate any fungi. Although the skin biopsy was negative for AFB smear, and negative for fungal culture, *Mycobacterium marinum* was isolated on culture.
5. The diagnosis is atypical mycobacterial infection with *Mycobacterium marinum* or fish tank granuloma. The histological diagnosis and clinical correlation are important because only a small percentage of cases have positive smear or culture.
6. For small and discrete lesion, surgical excision or cryotherapy can be considered. For disseminated disease, systemic antibiotics are indicated. Treatment includes prolonged course of doxycycline or clarithromycin for at least three months.