Laryngeal tuberculosis with tongue involvement in a renal transplant recipient

Sir,
In developing countries, where it rages in endemic state, tuberculosis is a relatively common complication in renal transplant recipients [1]. In a recent review, the incidence of tuberculosis in recipients of solid-organ transplants in Spain is estimated to be 0.8% [2]. However, certain extrapulmonary localizations are exceptional. We describe a case of laryngeal tuberculosis with tongue involvement which, to our knowledge, is the fifth case published in the literature [3,4].

Case. A 32-year-old man who had common pulmonary tuberculosis was successfully treated in 1993. He had required haemodialysis since July 1993 due to indeterminate nephropathy. He had been a carrier of viral hepatitis C since June 1994 but did not have liver dysfunction. In March 1996, he received a renal allograft from a related living donor (his mother). He was immunosuppressed with cyclosporin, azathioprine and prednisone. His serum creatinine at discharge from the hospital had stabilized at 19 mg/l. A biopsy of the graft after 2 months revealed interstitial lesions. A chronic pyelonephritis, a condition present in the donor, had recurred. Furthermore, 2 months after transplantation the patient developed diabetes secondary to corticosteroid treatment, and required insulin. After 1 year of treatment, cyclosporin was discontinued because of financial considerations. In February 2000, he was hospitalized for painful dysphagia, progressive hoarseness, fever and loss of 5 kg of weight over 2 months. There was no history of cough or expectoration. Examination showed a white, retracted, plicated and coated tongue. Bacteriological and mycological samples grew Pseudomonas and Candida albicans. The patient was treated with cefazidime and fluconazole for 15 days.

Marked subsidence of the symptoms followed, but an ulceration of the tongue, along with its deviation, persisted. The biopsy of the tongue showed a granulomatous inflammation with epitheloid and giant cells. Ziehl-Neelsen stain was strongly positive for acid-fast bacilli. Naso-fibroscopy disclosed a hypertrophic phlyctenular pharyngeal tonsil at the level of the cavaum. Direct laryngoscopy revealed an irregular thickening of the left true vocal cord. Chest X-ray was normal. The sputum did not contain acid-fast bacilli. At the same time, we observed a progressive deterioration of renal function with increase of serum creatinine to 32 mg/l. Liver function remained normal. We prescribed a three-drug regimen with isoniazid (3 mg/kg/day) and rifampicin (10 mg/kg/day), for 9 months, and pyrazinamide (20 mg/kg/day), for the first 2 months. Clinical response promptly followed. Within 6 months the painful dysphagia and hoarseness disappeared and he gained weight. The ulcer healed, but deformation of the tongue persisted. There was no notable secondary effect attributable to the treatment.
The function of the graft, however, deteriorated progressively and serum creatinine rose to 80 mg/l. A graft biopsy confirmed chronic graft dysfunction. He has again been on haemodialysis now for 1 month.

Discussion. In Morocco, tuberculosis is a major public health problem. The lungs remain the most frequent site of involvement. Extrapulmonary forms, mainly lymph node involvement, have reemerged in immunosuppressed patients as well as in patients with end-stage renal disease [5].

Laryngeal tuberculosis, although the most common granulomatous disease of the larynx, is a rare form of extrapulmonary tuberculosis in immunosuppressed patients, encountered—over a span of 14 years—in only three of 51 registered cases in Spain [2]. The laryngeal localization is encountered most often in the setting of disseminated tuberculosis aggravated by immunosuppression [6]. The role of immunosuppression, however, remains widely debated. Although laryngeal tuberculosis is reported relatively frequently in the literature, this extrapulmonary localization is rarely reported to occur in renal transplant recipients.

The first two cases were reported by Tato in 1998 [4] in women 29- and 60-years old, both grafted with cadaveric kidneys. The complication in our case probably resulted from the reactivation of old tubercular loci, a process described by some authors [4], notwithstanding the fact that the sputum was negative for *Mycobacterium tuberculosis* in direct examination as well as in culture. The involvement of the tongue, to our knowledge, is the first reported case in a renal transplant patient.

Such atypical presentations result in delays in diagnosis and the administration of effective chemotherapy. Bacterial and mycotic superinfections hide signs of tuberculosis. Macroscopically, laryngeal tuberculosis simulates carcinoma of the larynx, while painful dysphagia is the main symptom suggesting tuberculosis [7]. Vocal cord involvement results in hoarseness [8]. The isolation of *M. tuberculosis* from samples of laryngeal biopsy confirms the diagnosis, and helps to rule out laryngeal carcinoma, which is the most important differential diagnosis [3]. The lesions of the vocal cord seen in our patient in laryngoscopy were typical of tuberculosis, and the biopsy of the tongue confirmed it [9]. Amelioration of symptoms is observed within 3 weeks if corticosteroids are added to antituberculous medications in the beginning of the treatment [9].

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