Tuberculosis mimicking Kikuchi’s disease

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Abstract
Kikuchi’s disease is an idiopathic self-limiting necrotizing lymphadenitis. Clinically, it mimics tuberculous cervical lymphadenopathy. The disease is diagnosed by histopathologic study. The only specific treatment that has been reported is empiric steroid therapy. We report a case of tuberculosis that was originally thought to be Kikuchi’s disease in a 24-year-old man. When the patient’s condition worsened during a course of steroid therapy, he underwent surgical exploration, which revealed the presence of tuberculous lymphadenitis. The patient was switched to antituberculosis drug therapy, and his improvement was dramatic.

Introduction
Kikuchi’s disease (histiocytic necrotizing lymphadenitis) was reported for the first time in 1972 in Japan by Kikuchi and by Fujimoto et al. Affected patients often present with cervical lymphadenopathy accompanied by fever, myalgia, neutropenia, and rash. The etiology of Kikuchi’s disease has not yet been identified, and the only reported treatment is empiric steroid therapy. In this article, we report a case of tuberculous lymphadenitis that is noteworthy because the clinical presentation and initial histopathology suggested Kikuchi’s disease.

Case report
A 24-year-old man presented to our outpatient ENT department with a 3-year history of neck swelling. He reported that the size of the swollen area had increased in recent weeks. He had undergone a Tru-Cut biopsy elsewhere, and the results were reported as Kikuchi’s disease (figure 1). He had no recent history of fever, cough, weight loss, dysphagia, dyspnea, aspiration, hematemesis, or hemoptysis associated with the swelling.

Examination revealed that the swelling on the right upper neck measured approximately 3 × 4 cm. The biopsy scar and puckering were visible on the skin overlying the edematous area. On palpation, the swollen area was firm, mobile, and nontender. Two smaller areas of swelling were noted below the primary swelling. Fine-needle aspiration cytology revealed that the patient had reactive lymphadenitis. Findings on a detailed panendoscopy with blind biopsies and palpation of the tongue base were negative.

Computed tomography (CT) detected an odal mass in the upper part of the right neck (figure 2). Serologic evaluation revealed that the total blood count and differentials were normal, but the erythrocyte sedimentation rate (ESR) was elevated (35 mm/hr). The chest x-ray was negative.

Consultation with a pulmonologist was sought to assess the possibility of tuberculosis, which is very common in India. In view of the patient’s clinical symptoms, ESR value, and biopsy report, the consultant ruled out tuberculosis. We then referred to the international literature on Kikuchi’s disease, most of which suggested steroids as the mainstay of treatment. Therefore, we prescribed oral prednisolone at 10 mg three times daily, with the goal of tapering the dose when the patient improved. The patient returned for regular follow-up every 2 weeks for the next 2 months, but there seemed to be no improvement in his condition. Moreover, the areas of swelling began to increase in number and size. At that point, we decided to perform surgical exploration of the neck. A supraomohyoid neck dissection detected multiple neck lymph nodes involving levels I, II, and III. The nodes were matted together, and the submandibular salivary glands were enlarged (figure 3, A). The mass of nodes had compressed the internal jugular vein and caused thrombosis, and the internal carotid artery was compressed and thinned (figure 3, B). The excised specimen was sent for histopathologic analysis and, to our surprise, it was identified as tuberculous lymphadenitis (figure 4).

The patient was immediately started on antituberculosis treatment, and his condition improved dramatically. His postoperative course was uneventful, and he was discharged on postoperative day 6. At follow-up 1 month later, he was fine.
Discussion
Kikuchi’s disease is a self-limiting entity of unknown etiology that is also known as cervical subacute necrotizing lymphadenitis, histiocytic necrotizing lymphadenitis, and other terms. Several infectious agents have been incriminated, but none has been confirmed. Among these pathogens are Epstein-Barr virus, cytomegalovirus, varicella zoster virus, human herpesvirus 6, human immunodeficiency virus, Yersinia enterocolitica, and Toxoplasma gondii. Silicon breast implants have also been proposed as a possible cause.

The histologic differential diagnosis in a case of Kikuchi’s lymphadenitis includes tuberculous lymphadenitis, lupus lymphadenitis, high-grade non-Hodgkin’s lymphoma, overreactive lymphadenitis, and metastatic malignancy.

Kikuchi’s disease has been classified as proliferative, necrotizing, and xanthomatous.

In our patient, histologic analysis of the original Tru-Cut biopsy specimen revealed features of Kikuchi’s disease—specifically, large areas of necrosis and tiny irregular karyorrhectic debris in certain areas. No neutrophilic acute inflammatory cells or granulomas were seen, but a few hyperplastic follicles were present. The second histopathologic finding was different. The second specimen exhibited features of a typical tuberculous lymphadenitis, including areas of tuberculous granulation tissue with full-blown caseating epithelioid cell granulomas, Langerhans’ giant cells, and lymphocytic infiltrates.

Because a possible link between Kikuchi’s disease and systemic lupus erythematosus has been proposed, many authors advocate the use of steroids to cure the disease. We prescribed a trial of steroid therapy for our patient, but he did not respond to it. As a result of this failure to improve and the fact that the number and size of the swellings had increased, we decided on an alternate approach, and the outcome was remarkable.
We believe that the incidence of Kikuchi’s disease might be higher than what is generally thought, and we recommend that it be considered in the differential diagnosis of cervical lymphadenopathy in young adults.

References