Unusual Manifestations of Hodgkin's Disease

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Hodgkin's disease is a common malignant disorder that typically presents with lymphatic enlargement along with "B" symptoms consisting of night sweats, fever, malaise, weight loss and pruritis [1]. Less common symptoms can include cutaneous manifestations, hemolytic anemia, and alcohol-induced pain. Typically, these unusual manifestations accompany the more typical clinical picture [2]. We present an unusual case in which the rare extralymphatic symptoms predominated, delaying the eventual diagnosis of Hodgkin's disease.

Patient Description

A young woman of 18 was admitted to the Kaplan Medical Center, Rehovot for evaluation of syncope, rash, pruritis, and pleuritic chest pain. On admission she was noted to be tachycardiac with a pulse of 140 and with thoracic subcutaneous emphysema. Lymph nodes were not enlarged. A pleuritic right-sided pleural friction rub was also noted.

She had been well until 3 months prior to admission when she was admitted to another medical center with a clinical diagnosis of eczema microbicum (biopsy was not performed at that time). She was treated with steroids and her condition improved. In addition, 1 week prior to that admission she noted new onset of odynophagia and mouth ulcers. Gastroscopy was normal.

On admission, laboratory evaluation revealed: erythrocyte sedimentation rate 4 mm/hour, white blood cell count 22.5 x 10 /ml, polymorphonuclear cells 86%, hemoglobin 15.2 g/dl. Chemistry studies were all normal. Chest X-ray confirmed the presence of subcutaneous emphysema along with pneumomediastinum. Electrocardiogram showed sinus tachycardia without ST or T wave changes. Additional studies including C-reactive protein, antinuclear antibodies, anticardiolipin antibodies, complement levels, serum protein electrophoresis, and serologic evaluation for hepatitis (A, B, C), cytomegalovirus (immunoglobulin G and M), and Epstein-Barr virus were all negative or normal. A skin biopsy performed because of complaints of pruritis was normal.

Evaluation of the upper airways by direct laryngoscopy failed to reveal an evident source of the pneumomediasti-

num. Computed tomography chest showed pneumomediastinum with what was believed to be reactive lymphadenopathy in the anterior mediastinum. Due to the patient's unstable medical condition, further evaluation was not attempted at that time. Subsequent follow-up X-rays were normal.

A bleeding gastroesophageal ulcer requiring pyloroplasty and vagotomy, bilateral pneumothoracotomies, and *Acinetobacter* sepsis complicated the hospital course. Her clinical status improved, however, and she was ultimately discharged in stable condition.

Two months later the patient was readmitted with hemolytic anemia, torticollis, mouth ulcers and a pruritic rash. Physical examination showed no hepatosplenomegaly or lymph node enlargement. Hemoglobin was 5.6 with positive Coombs' test (direct and indirect). Repeat serologic studies including antinuclear antibodies, antiphospholipid antibodies, and G6PD levels were again negative. Bone marrow biopsy revealed only reactive changes with ringed sideroblasts. Magnetic resonance imaging of the cervical spine showed a bulging C4-C5 disk without significant cord compression. Steroid treatment resulted in improvement of both clinical and laboratory parameters and she was transferred to rehabilitation.

Steroid weaning was followed by the development of paraplegia in the lower extremities and recurrent hemolytic anemia. MRI of the lumbar spine was normal. Cervical lymphadenopathy was now notable on physical examination, and biopsy revealed nodular sclerosing Hodgkin's disease. Administration of CHOP chemotherapy led to an improvement, but her paraplegia did not resolve.

Comment

As this case demonstrates, Hodgkin's disease can have a variable clinical presentation with unusual manifestations, such as pneumomediastinum, hemolytic anemia, rash, pruritis, and neurologic deficits that may precede the more typical symptoms. Our case is perhaps unusual in that the rare manifestations were so prominent and preceded the diagnosis by such a long time.

Pruritis is perhaps the most common of the rarer clinical features in Hodgkin's disease and has been reported to occur in 10–25% of patients. It frequently precedes the diagnosis, is often associated with "B" symptoms, and is rarely a single manifestation. Women are most commonly affected, particularly if pruritis occurs alone. The symptom is typically diffuse although rarely mildly localized. Lower extremities are more commonly involved in more localized cases [2].

Skin rashes in Hodgkin's can be divided into specific and non-specific causes. Specific rashes include type A lymphomatoid papulosis or infiltrative papular lesions on the trunk and extremities in which biopsy can be diagnostic. Non-specific cutaneous abnormalities can include erythematous, urticarial, vesicular, or bullous lesions, or appear typical of infective agents such as varicella zoster or cytomegalovirus [2].

Hemolytic anemia is typically mild, negative to Coombs' test, and characterized by normal erythrocyte indices and normal or low reticulocyte counts. Some evidence points to hemolytic anemia in these patients due to a specific antibody (immunoglobulin G anti-I) unique to Hodgkin's disease. As with other rare manifestations, hemolytic anemia can precede the more typical clinical picture by many years [3,4].

Central nervous system involvement in Hodgkin's disease is particularly rare, being reported in 0–0.2% of patients. Most commonly it occurs in conjunction with other immune deficiency syndromes such as AIDS, congenital immune deficiency, or familial Hodgkin's with immune deficiency. Clinically, these manifestations include subacute cerebellar degeneration, progressive multifocal leukoencephalopathy, limbic encephalitis, or – as seen in our patient – paraneoplastic myelopathy. Typically, central nervous system involvement is a poor prognostic indicator that responds poorly to therapy and is associated with reduced survival of 6–73 months [2].

Pneumomediastinum is a particularly rare manifestation of the disease, having been reported primarily in children and in only one adult [5]. That individual shared several common features with our patient, including sudden onset of pneumomediastinum as the presenting manifestation of Hodgkin's disease. In contrast, the previously reported case had an evident endobronchial lesion on presentation, which on biopsy confirmed the diagnosis.

Another reported rare manifestation, which was not seen in our patient, is the appearance of pain upon ingestion of alcohol. The incidence of this clinical feature is reported in 1–2% of Hodgkin's patients and is frequently associated with mediastinal adenopathy and nodular sclerosis histology. Similarly, other reported clinical rarities including nephrotic syndrome, idiopathic thrombocytopenic purpura, and bone lesions were not seen in our patient.

In summary, we present an unusual case of Hodgkin's disease presenting with multiple rare clinical manifestations in which the diagnosis was delayed because of this atypical presentation. Improved physician awareness of these syndromes may improve diagnostic accuracy in the future.

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