

Hodgkin's Disease Presenting as Nephrotic Syndrome : A Case Report

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Abstract

Nephrotic syndrome is a rare presentation of Hodgkin's disease. Majority of these cases have minimal change disease and some cases present as membranous glomerulopathy. This report presents the case of a child with nephrotic syndrome associated with Hodgkin's disease.

Introduction

Nephrotic syndrome (NS) is a common disease in children 2-7 years of age. Majority of cases are idiopathic with minimal change in pathology. Infrequent causes of NS in children include focal segmental glomerulosclerosis, membranous nephropathy and therapy with penicillamine, gold or mercury compounds. Rarely NS has also been described in association with extra renal neoplasms like lymphoma and carcinoma^{1,2}. A case of NS in association with Hodgkin's disease is described below.

Case Report

A 6 years old Afghan refugee boy presented with history of well circumscribed, painless swelling on the left side of the neck noticed by the parents. Five days later, the child started to develop generalized swelling of the whole body without any other systemic complaint. A local doctor gave him some treatment with no improvement. The swelling of the body gradually increased and spread to the external genitalia. On day 14, the patient also developed high grade fever thus necessitating hospitalization in our unit. The past history has been unremarkable except for an attack of poliomyelitis at the age of 2 years resulting in flaccid paralysis of the lower limbs. There was no history of drug use or immunization in the recent past. Clinical examination revealed a developmentally normal child, with gross pitting oedema of the whole body (anasarca). His weight was 20 kg with abdominal girth of 67 cm. There were no features suggestive of protein calorie malnutrition. He was pale looking and had a temperature of 38°C, pulse rate of 120 min and supine blood pressure of 110/70 mmHg. He had flaccid paralysis of both the lower limbs with a reflexia. He had multiple soft rubbery, discrete, mobile and non-tender lymph nodes on the left side of the neck. The patient also had ascites, which made abdominal visceral palpation difficult. There were no other positive findings on general and systemic clinical examination.

Investigations: Blood picture showed haemoglobin of 10.8 Gm/dl and ESR 60 mm 1st hour. Total leukocyte count was 16700 mm³ with 47% polymorphs and 50% lymphocytes. Blood urea, sugar and serum electrolyte were normal. Urine examination showed albuminuria 4+ and pus cells of 5-10 cells per high power field. Urine culture was negative. Urinary protein excretion was 3.5 grams per 24 hours. Serum protein was 4.3 g/dl and cholesterol 240 mg/dl. Mantoux test was negative. Chest radiograph and ECG were normal. Smears of peripheral blood and bone marrow aspirate were normal. Abdominal ultrasonography showed ascites, normal kidneys and no enlargement of para aortic lymph nodes. Lymph node biopsy from cervical glands confirmed the diagnosis of Hodgkin's disease, mixed cellular type. Diagnosis of nephrotic syndrome (NS) with Hodgkin's disease was made based on clinical and laboratory evidence. In aetiology, idiopathic NS as well as nephrotic syndrome secondary

to tuberculosis or malignancy was considered.

Discussion

NS is a rare complication of Hodgkin's disease. Minimal change NS was found only in 0.4% patients in two combined series of cases of Hodgkin's disease with a total of 1700 patients^{4,6,7}. In 90% cases, NS is idiopathic. Approximately 10% cases of idiopathic NS are associated with different neoplastic disorders including solid tumours, carcinomas, lymphoma. Amongst lymphoma, nephrotic syndrome is ten times more common in patients with Hodgkin's disease. NS is associated more frequently with mixed cellular type Hodgkin's disease^{1,3,4}. In Hodgkin's disease, minimal change disease makes the pathological basis of NS in majority of cases^{4,5}. Membranous glomerulopathy is associated with only 10% of cases of NS with Hodgkin's disease. In contrast, NS in patients with carcinoma has membranous glomerulonephritis as underlying pathology in 80-90% of cases^{4,5}. In most patients with Hodgkin's disease and nephrotic syndrome, the two diseases may develop simultaneously or one after the other. Nephrotic syndrome regresses with the treatment and returns with the relapse of Hodgkin's disease^{4,8-10}.

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