Unusual presentation of more common disease/injury

Hodgkin's lymphoma presents as an inguinal abscess: a case report and literature review

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Summary

Lymphadenitis with suppuration is a rare presentation of Hodgkin's lymphoma with few cases reported in the literature. We report two cases of Hodgkin's lymphoma in two male members of the same family. They presented initially with clinical features suggesting infective inguinal lymphadenitis and then the picture was indistinguishable from inguinal abscess. The diagnosis was made after drainage of the pus and excision of the involved lymph node. The histopathology of the excised lymph node showed Hodgkin's lymphoma—nodular sclerosis for both brothers. After careful staging of both patients, the disease found to be localised to the inguinal group of lymph nodes. The patients referred to the haematologist for chemotherapy and they recovered after treatment.

BACKGROUND

Hodgkin's lymphoma presenting primarily as suppurative lymphadenitis is a rare and vague clinical scenario. This clinical presentation should be given more consideration during the assessment of infective lymphadenitis complicated by suppuration particularly when the offending lymph node(s) preserve part of its architecture. In our cases, the involvement of members of the same family is a cryptic scenario and may suggest the presence of an infective agent as an aetiology for Hodgkin's lymphoma although no focus identified during infection screen.

CASE PRESENTATION

Young=aged brothers at their early 20s presented to the outpatient clinic complaining from pain in the right groin for 3 days duration. They were otherwise completely healthy. On examination, they were generally well and have a good built with no anaemia or jaundice and no cervical lymphadenopathy. Vitally, the pulse was 92 and 98 beats/min and the temperature was 38.3 and 38.5°C and a blood pressure of 110/80 and 120/70 mm Hg, respectively. Local examination reveals a tender lump at the upper part of the right thigh just above the inguinal ligament. It is oval in shape and measures 5×3 and 4×3 cm, not attached to the skin nor to the underlying structures with a normal overlying skin. There was no skin lesions or ulcers in the lower limbs and no other lymph nodes detected throughout the body. Abdominal and chest examination were normal.

Blood tests that include full blood count and erythrocyte sedimentation rate, Brucellae agglutination test and Widal test were done and all the results were normal except for eosinophilia in full blood count. Viral screen was negative for hepatitis B, C and HIV. Imaging studies reveals normal chest radiography and ultrasound scan of the lump showed features consistent with lymphadenitis.

A course of antibiotics given on this assumption (Ampicilline–Cloxacilline injections 500 mg every 6 h) but

after 3 days the lumps became very painful and increased in size with redness of the overlying skin. The clinical examination reveals a tender fluctuant lump suggesting suppurative infected lymph node. Needle aspiration revealed golden yellow thin pus which was sent for Gram staining and acid fast bacilli (AFB) as tuberculosis is a common disease in our locality. Incision and drainage of the abscess were done under general anaesthesia. However, the involved lymph node was still palpable and excision was made for histopathological analysis. Postoperatively, both brothers have smooth recovery, the wounds left open for secondary healing with daily dressing and a cover with antibiotics. The results of pus sample was negative (sterile pus!) for any bacteria and AFB was also negative. More surprising is the result of the histology that showed Hodgkin's lymphoma—nodular sclerosis-type variant (figures 1–5). A staging CT scan of the abdomen and the chest was done for both patients and showed no other group of lymph nodes involved. Liver and spleen did not show any abnormalities.

Figure 1 Classical Hodgkin's lymphoma—nodular sclerosis variant.

Figure 2 Classical Reed-Sternberg cells of Hodgkin's lymphoma—patient 1 (H&E staining).

The patients referred to the haematologist for chemotherapy and recover after treatment.

DISCUSSION

Hodgkin's lymphoma is a rare malignancy, with an incidence of about 2.4 per 100 000 per year.¹ The WHO classification of Hodgkin's lymphoma disorder into two distinct entities: nodular lymphocyte-predominant Hodgkin's lymphoma; and classical Hodgkin's lymphoma.²

Classical Hodgkin's lymphoma is divided into four subtypes. In the developed world, nodular sclerosing variant of classical Hodgkin's lymphoma accounts for over two-thirds of all cases.³ The clinical presentations of Hodgkin's lymphoma are many. The dominating symptoms are lymphadenopathy typically in the lower neck in the supraclavicular region. Mediastinal masses are frequent and are sometimes discovered after routine chest radiography. The nodular sclerosis variant affects mainly young adults and may involve liver, spleen and bone marrow in less than 10% of the patients.³ About 25% of patients will have systemic symptoms at presentation. Pruritus and intermittent fevers usually associated with night sweats are classic symptoms of Hodgkin's lymphoma.⁵ However, the clinical presentation of suppurative disorder is rare and confusing scenario. It has been reported that extranodal

Figure 3 Classical Reed-Sternberg cells of Hodgkin's lymphoma—patient 2 (H&E staining).

Figure 4 Immunohistochemical staining of lymph node showed strong expression of CD20/CD30—patient 1.

Hodgkin's lymphoma present itself as chest wall abscess,⁴ cutaneous abscess,⁵ liver abscess,⁶ lung abscess⁷ and splenic abscess.⁸ Moreover, the lymphadenopathy of Hodgkin's lymphoma could mimic suppurative disorders in the neck and misdiagnosed as multiple cervical sinuses with abscess formation.⁹ Spontaneous, suppurative changes associated with Hodgkin's disease are mostly observed in the nodular sclerosis variant and can cause an erroneous histological diagnosis of suppurative lymphadenitis.¹⁰

This presentation adds another diagnostic challenge to the histological diagnosis of nodular sclerosis variant of Hodgkin's lymphoma due to paucicellularity of the specimen obtained by fine needle aspiration for cytology (FNAC).^{10 11}

Florentine and Cohen found in their case report that FNA biopsy taken from inflamed lymphadenitis showed initially acute inflammation markers that is proved later to be a case of Hodgkin's disease and the cytology-identified neoplastic Hodgkin and Reed-Sternberg cells in the purulent exudate after retrospective review.¹¹ This is considered as a possible pitfall in FNAC as it is difficult to identify the typical mononuclear cells and diagnostic Reed-Sternberg cells in the purulent exudate of Hodgkin's disease.¹²

In our cases, the aspiration of pus from a lump make the surgeon unlikely to think about a pathology other than an

Figure 5 Immunohistochemical staining of lymph node showed strong expression of CD20/CD30—patient 2.

abscess to which simple incision and drainage is the usual management. However, this presentation of Hodgkin's disease should be considered especially after a negative infectious work-up and when the aspirate is negative for any bacteriological study (Gram stain and AFB).

In our case report, the following observations make the diagnosis of suppurative lymphadenitis is questionable. First, the presence of two members of the same family having the exact presentation; second the preservation of part of the lymph nodes after drainage of pus and lastly the absence of evidence of infection. Hence, the definite diagnosis was made after excisional biopsy of the involved lymph nodes.

The cause of involvement of two family members of the same sex in the same occasion with this disease process is not explained yet.

Learning points

- ▶ Hodgkin's lymphoma have different clinical scenarios but suppurative presentation is rare.
- ▶ It makes a real confusion between a common disease such as subcutaneous abscess secondary to lymphadenitis and a serious disease such as lymphoma.
- ▶ A high index of suspicion is vital for recognition of such cases particularly when the offending lymph node (s) preserve part of its architecture.
- ▶ The purulent aspirate obtained from such lesion should be re-examined thoroughly by histopathologist especially in the absence of evidence suggesting infectious aetiology, that is, sterile pus can be caused by Hodgkin's lymphoma.
- ▶ Our case report of involvement of brothers in the same family may present a probable infective aetiology for the pathogenesis of lymphoma that necessitate further search by the pathologist to ascertain from this phenomenon.

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