A RARE PRESENTATION OF PERIANAL ULCER IN A PATIENT WITH NON-HODGKIN'S LYMPHOMA

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ABSTRACT

Perianal ulcers are rare but clinically significant presentation in immunocompromised patients, particularly in those with hematological malignancy such as non-Hodgkin's lymphoma (NHL). In these individuals, immunosuppression predisposes them to infections, impaired wound healing and secondary malignancies. We present a unique case of large necrotic perianal ulcer in a patient with recently diagnosed diffuse large B-cell lymphoma (DLBCL), discussing its clinical course, diagnostic and management challenges. A 55-year-old male presented with a 3 week history of perianal pain and 4 days of difficulty in micturition. Examination revealed a large necrotic ulcer with extensive tissue involvement. He had undergone incision and drainage of perianal abscess 2 months back and was recently diagnosed with non-Hodgkin's lymphoma by biopsy 3 weeks back. Histopathological evaluation confirmed diffuse large B-cell lymphoma involving the perianal region. This case highlights the diagnostic and therapeutic challenges of managing complex perianal ulcers in immunocompromised patients.

KEYWORDS

Perianal ulcer, diffuse large B-cell lymphoma, immunocompromised patient

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INTRODUCTION

Perianal ulcers are open sores that develop around anal region. They are usually linked to infection, trauma, inflammation, or neoplasm which are the main causes of chronic, persistent, nonhealing perianal ulcers.[4]

Perianal ulcers are generally rare but frequently observed and clinically significant in immunocompromised patients, particularly in those with hematological malignancy such as non-Hodgkin's lymphoma (NHL).[1] Similarly in HIV-positive individuals, incidence of anorectal involvement is found to be higher.[2] Such anorectal manifestation usually occurs in the form of anorectal lymphoma and is common in severely immunocompromised.[3]

Lymphomas are solid tumours of the immune system, with about 90.0% being non-Hodgkin lymphoma and 10.0% Hodgkin lymphoma.[5] Non-Hodgkin lymphoma (NHL) comprises a wide group of lymphoproliferative malignant diseases. Diffuse large B-cell lymphoma (DLBCL) is the most common and aggressive form of NHL.[8]

NHL presents with diverse clinical and histological features often making diagnosis and management difficult.[6,7] While most patients usually present with persistent painless lymphadenopathy, some may exhibit constitutional symptoms or involvement of other extra nodal sites.[6] Perianal region involvement is extremely rare.

Here, we report the unusual case of a patient with newly diagnosed DLBCL, who developed a large necrotic perianal ulcer. We describe its clinical course, diagnosis and management.

CASE REPORT

A 55-year-old male presented to Nepal Medical College Teaching Hospital (NMCTH) Surgery OPD with chief complaints of severe perianal pain for 3 weeks and difficulty in micturition for 4 days. The pain was insidious in onset, burning type, intermittent, aggravated on sitting or lying down, associated with foul-smelling discharge and affecting daily activities. He also complained of burning micturition but there was no history of fever, weight loss or any systemic symptoms. In past history, patient had undergone Incision and drainage of perianal abscess 2 months back.

On general examination, the patient was alert, awake and oriented. Vitals were stable. There was no pallor, icterus or lymphadenopathy. Other general findings were not significant.

On local examination, perianal ulcer was present, measuring about 8 × 5 cm^2 , extending from natal cleft to base of scrotum. It had indurated tender base along with necrotic slough and purulent discharge. Scrotal swelling was present.

INVESTIGATION

Radiological findings (MRI of pelvis): MRI of the pelvis revealed a semi-circumferential ulcerative mass measuring 9.5 cm in the anal canal and lower rectum. There was associated wall thickening with heterogeneous enhancement and diffusion restriction. The lesion infiltrated the internal and external anal sphincters, extended into the intersphincteric plane, and involved the left levator ani muscle.

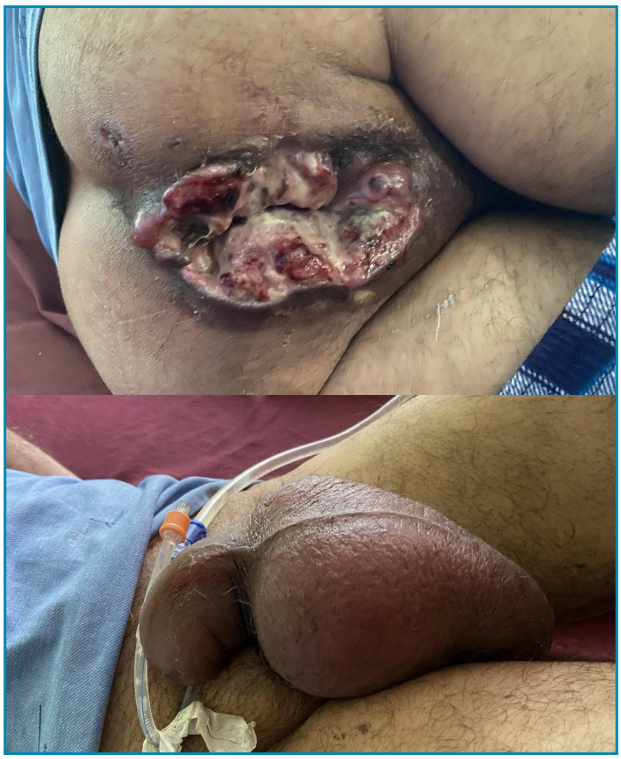

Fig 1: Perianal ulcer on examination

Multiple bilateral inguinal lymph nodes were also noted, which were likely reactive.

Histopathological and immunohistochemistry (IHC) findings: Wedge biopsy of the ulcer showed stratified squamous mucosa infiltrated by sheets of intermediate- to large-sized lymphoid cells with moderate cytoplasm, oval nuclei, and conspicuous nucleoli. Mitoses (4–5 per high-power field), and areas of necrosis with inflammatory debris were observed. The impression was positive for malignancy, consistent with non-Hodgkin's lymphoma.

On immunohistochemistry, tumor cells expressed CD20, CD10 and BCL2 was consistent with B-cell lymphoma. The Ki-67 proliferative index was high (50.0–60.0%), suggesting high proliferative activity. The tumor cells were negative for cytokeratin (CK) and T-cell markers. Based on these findings, the final diagnosis was diffuse large B-cell lymphoma (DLBCL) involving the perianal region.

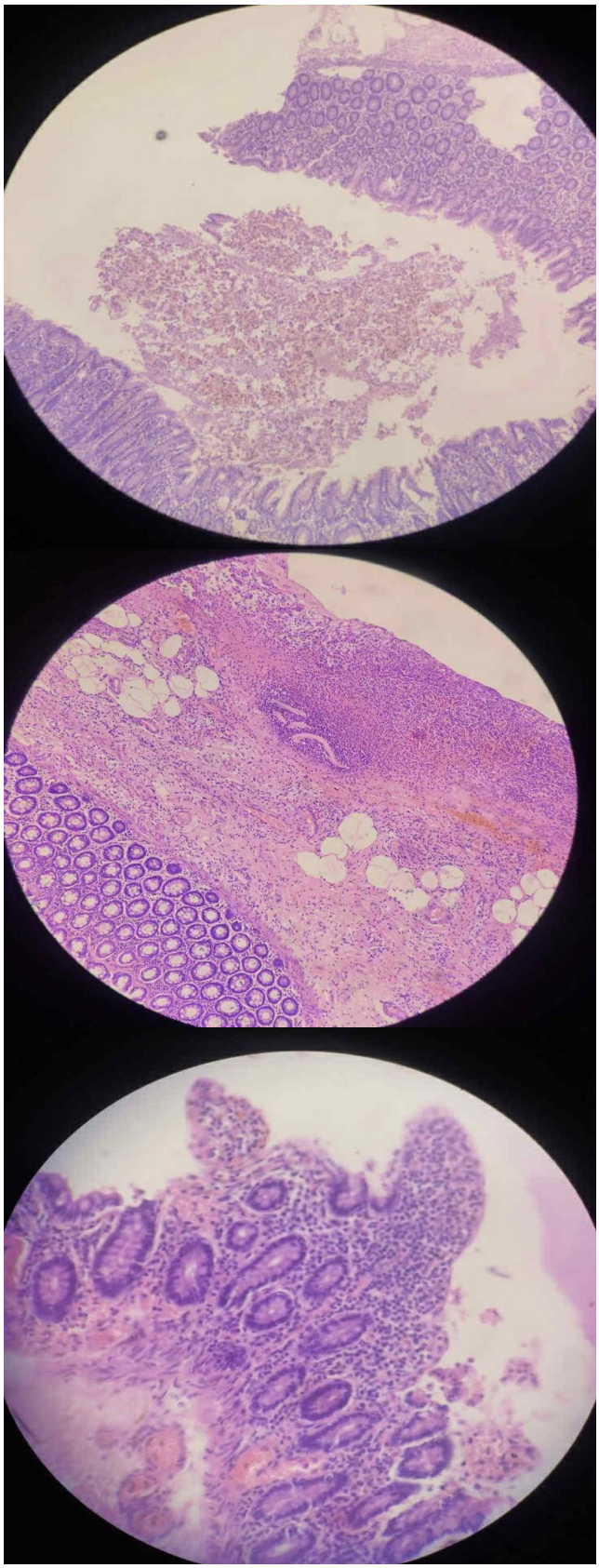

Fig. 2: Histopathology slide of the ulcer

Diagnosis: Necrotic perianal ulcer secondary to diffuse large B-cell lymphoma (DLBCL) in a patient with non-Hodgkin's lymphoma.

MANAGEMENT PLAN

Diagnostic workup: Biopsy and culture of the ulcer were continued to rule out secondary infections. A comprehensive staging workup for NHL was planned to guide systemic therapy.

Local wound care: The necrotic ulcer required surgical debridement followed by regular antiseptic dressings. Empirical broad-spectrum antibiotics with anaerobic coverage were initiated, with modifications based on culture results.

Oncological management: Systemic chemo-therapy for DLBCL was planned based on staging e.g (R-CHOP protocol) The patient would be closely monitored for treatment-related immunosuppression.

Supportive care: Adequate pain management was provided using opioid and non-opioid analgesics. Urinary care was provided with maintenance of a Foley's catheter to ensure patient comfort and hygiene during treatment.

DISCUSSION

Perianal ulcers are uncommon in patients with non-Hodgkin's lymphoma (NHL) and usually associated with immunosuppression, infections or secondary cancers. In this case, ulcer was caused by diffuse large B-cell lymphoma (DLBCL), which is rare and showed aggressive behavior, as indicated by high Ki-67 index. Comprehensive diagnosis including biopsy with histopathology, immunohistochemistry (IHC) and radiological imaging is essential for establishing accurate diagnosis and guiding timely initiation of systemic therapy. Management of such case requires a multidisciplinary team approach. Oncologists, Surgeons, Infectious disease specialists must work together to address both local wound complications and systemic disease. Diffuse large B-cell lymphoma (DLBCL) constitutes 30.0% of all lymphomas. Lymphomas are broadly divided into Hodgkin and non-Hodgkin, depending on the presence or absence of Reed-Sternberg cells respectively, with each having subtypes.[9]

Lymphomas presenting as abscesses have been

reported in patients with acquired or congenital immunodeficiency. Clinicians should, however, think of this possibility even in case of non-healing perianal abscess in immunocompetent individuals. Case reports of anal lymphoma are rare in literature. Thus, proper biopsy and histological analysis of tissue is important in patients with non-resolving peri-anal mass.[9]

A case of 63 year old male presenting with multiple peri-anal abscess was reported by Jayasekera *et al*.[9] whose biopsy also showed DLBCL. They managed this case by colostomy and R CHOP chemotherapy [Rituximab, Cyclophosphamide, Hydroxydaunorubicin (doxorubicin), Oncovin (vincristine), and Prednisone]. In our case, we used CHOP regimen but no surgical intervention was done.

A non-healing peri-anal abscess can be challenging to manage. Anal lymphoma masking itself as peri-anal abscess is rare. So we should be suspicious of any peri-anal abscess that is not resolving with standard treatment.[9]

We present the case of a 64-year-old Turkish man with a rapidly progressive perianal mass. Our patient had previously required medical treatment on multiple occasions for hemorrhoidal disease; however, the treatment was ineffective and gross lymph nodes were noted in his left inguinal region.[14]

Similarly, Smith *et al*[14] reported another case of perianal lymphoma in a 67-year-old non immunocompromised, heterosexual male in which biopsy revealed immunoblastic large B cell lymphoma. Patient was HIV negative and complete resolution was achieved with CHOP chemotherapy. This study shows that perianal malignancy can also occur in immunocompetent patients and should be ruled out with histopathology.

A Chinese study by Liu *et al*[13] reported case of 24-year-old Chinese female who initially presented with perianal pain, perianal abscess which was later diagnosed on biopsy as T cell lymphoma. So although B cell lymphoma is common, sometimes T cell lymphoma may also be seen.

Thus, CHOP is considered as standard treatment for perianal ulcer, either alone or combined with radiotherapy. More intensive regimens including other drugs like methotrexate, ifosfamide, etoposide, and cytarabine have also been tried, but with limited success.[12]

Another 3 drug regimen was tried 3 drug regimen was which included single dose of IM ceftriaxone 1g, single dose of oral azithromycin 1g and 14-day course of oral acyclovir 400 mg every 6 hr. The cure rate for anal ulcer using this drug therapy was found to be 33.0% and that with excisional biopsy was 77.0%.[10]

According to a study conducted by Sangster *et al*,[15] MRI is the modality of choice for local staging of anal/perianal neoplasms. MRI findings of anorectal tumor included circumferential wall thickening, bulky soft-tissue mass, homogenous or heterogenous contrast enhancement. MRI also best shows involvement of anal sphincter, intersphincteric plane and levator ani muscle.

Another review on anal and perianal masses highlighted the use of MRI for local characterization, differentiating solid tumor from abscess and mapping involvement of sphincter, pelvic floor, ischiorectal fossa, levator ani.[16] So radiology is also quite useful and plays significant role in comprehensive diagnosis of perianal masses.

In conclusion, rare anorectal pathology may mimic common conditions. Biopsies should be taken to rule out malignancy. This case shows that necrotic perianal ulcers can represent extranodal manifestations of lymphoma. For early recognition, comprehensive diagnostic approach is needed which includes biopsy and radiology. Multidisciplinary care is essential to optimize outcomes in such rare and challenging cases. Systemic and neoplastic diseases should be included in the differential diagnosis of any potentially benign perianal abscess and ulcers.

Sometimes it may present as hemorrhoids also. Although gastrointestinal presentation of non-Hodgkin lymphoma is common, the literature includes only a few cases of perianal localization. Our case illustrates the importance of suspicion and complete examination of perianal masses. In practice, examination of the inguinal region should be a part of routine proctological examination.[14]

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