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RARE CASE OF NEUROTROPIC PREDELICTION OF CHLOROMA

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ABSTRACT

Chloroma is a rare tumor of immature granulocytic cells.It is also called as granulocytic sarcoma or myeloid sarcoma.Chloromas are reported in 2.5%–9.1% of patients with acute myeloid leukemia (AML) and occur concomitantly, following, or rarely antedating the onset of leukemia. The presence of an extramedullary relapse of leukemia is often associated with a poor prognosis. Chloromas' clinical manifestations are diverse given their various sites of occurrence. Involvement of isolated peripheral nerves by chloromas is exceedingly rare and is documented only in limited reports preceding more widespread relapse in the majority of cases [1-4]Special staining and histochemistry studies are required for accurate diagnosis. No prognostic significance exists between acute leukemic patients with granulocytic sarcomas and those without.These sarcomas are very sensitive to focal irradiation or chemotherapy; they generally resolve completely in less than 3 months, although they recur in approximately 23% of patients [5]. This particular case is presented because the patient initially presented with features of peripheral neuropathy and was later diagnosed with chloroma as the etiology of his neuropathic signs.

KEY WORDS: chloroma,wrist drop,foot drop,peripheral neuropathy

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CASE REPORT

56 year old gentleman presented with bilateral wrist drop followed by right foot drop. Patient had bilateral thenar muscle wasting.

Figure 1
Wrist drop of both hands

Figure 2 & 3
Foot drop and small muscle wasting of the hands

We evaluated on the lines of differential diagnosis of foot drop and wrist drop.
Patient developed a soft tissue mass over the right shoulder.

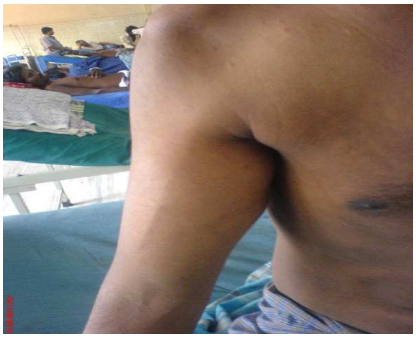

Figure 4
Soft tissue swelling with muscle wasting

Past history & personal history: unremarkable

INVESTIGATIONS

Routine investigations were within normal limits.Peripheral smear and total white blood cell count were within normal limits. Serum ACE levels were normal .Rheumatoid factor, Anti nuclear antibody, anti CCP negative were negative.Chest xray was normal .Serology was negative .Slit skin smear for Hansen's was negative .Biopsy of soft tissue mass was suggestive of chloroma.Bone marrow trephine biopsy done later showed M4 Acute Myeloid Leukemia.

DISCUSSION

A chloroma is an extramedullary manifestation of acute myeloid leukemia; in other words, it is a solid collection of leukemic cells occurring outside of the bone marrow.Common sites involved are bones, Central Nervous system, Gastro intestinal tract, genitourinary tract, orbit, lymphnodes, pleural and peritoneal cavities, breasts, thyroid, salivary glands lungs,small bowel.Peripheral nervous system involvement seems to be much less common and a precursory review of the literature shows only two cases which include a facial nerve palsy and involvement of the sciatic nerve.[6] Chloroma is observed in patients with Acute Myeloid Leukemia and Chronic Myeloid Leukemia, other myeloproliferative disorders such as myelofibrosis with myeloid metaplasia, hypereosinophilic syndrome, polycythemia vera. In Cit denotes onset of blast transformation. Tumour cells contain myeloperoxidase hence green in colour.Tumour antedates the appearance of frank leukemic features by months or even a year. Definitive diagnosis of a chloroma usually requires a biopsy of the lesion in question. Immunohistochemical staining using monoclonal antibodies against CD34 and CD117 would be the mainstay of diagnosis.Treatment includes systemic chemotherapy, Chloromas are typically quite sensitive to standard antileukemic chemotherapy. Radiotherapy causes excellent local disease control and palliation of symptoms without significant toxicity.

DIFFERENTIAL DIAGNOSIS

Chronic Myeloid Leukemia, Myelofibrosis, leukemoid blood picture associated with severe infection, secondary malignancy of bone with palpable spleen,leukemic processes where Ph chromosome is absent.

CONCLUSION

Chloroma discussed in this report was unique with respect to both its location and symptomatology. Missing this diagnosis would have lead to unnecessary surgery and increased morbidity to the patient. Albeit extremely rare, orthopaedists should be aware of chloromas when evaluating a local mass of unknown etiology, especially in patients with a known history of Acute Myeloid Leukemia. Knowledge of this diagnostic possibility can expedite treatment for the patient and eliminate unnecessary procedures.

CONFLICT OF INTEREST

Conflict of interest declared none.

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