

Testicular Involvement in Blast Crisis of Chronic Myeloid Leukemia

A 17-year-old boy presented with complaints of weakness, low-grade fever and abdominal distension of one-month duration. He had pallor and massive splenomegaly. Complete blood count showed hemoglobin 7.9 g/dL, WBC count 245900/mm³ with 30% neutrophils, 10% lymphocytes, 3% myeloblasts and 57% myelocytes and metamyelocytes. The platelet count was 93000/mm³. Bone marrow aspiration revealed a hypercellular marrow consistent with a diagnosis of chronic myeloid leukemia. Cytogenetic analysis confirmed the presence of Philadelphia chromosome.

Patient was started on Imatinib mesylate in the dose of 400 mg/day. He tolerated Imatinib well for 2 months. Splenomegaly regressed and hematological remission was achieved. In the third month, patient developed myelosuppression with prolonged pancytopenia for which Imatinib was withheld. Bone marrow aspiration and biopsy performed during this period showed a regenerating marrow. Imatinib was finally resumed after 11 weeks in the dose of 300 mg/day but was withheld within 10 days as the patient again developed thrombocytopenia.

Four weeks later, patient presented with fever, weakness and decreased hearing. He was pale, had generalized lymphadenopathy, mild hepatosplenomegaly and bilateral

painless testicular enlargement. Complete blood count revealed hemoglobin 3.5 g/dL WBC count 4400/mm³ with 58% neutrophils, 28% lymphocytes 4% monocytes and 6% blasts. The platelet count was 18000/mm³. The bone marrow was hypercellular with 85% blasts consistent with blast crisis of CML. Immunophenotyping revealed CD10 and CD20 positive B-lineage lymphoblastic leukemia. Scrotal sonography showed bilateral enlarged testis with decreased echogenicity and coarse echotexture. The cerebrospinal fluid cytology was positive for blasts. The patient was started on induction chemotherapy as per the MCP 841 Protocol for acute lymphoblastic leukemia. He responded well initially with resolution of hepatosplenomegaly, testiculomegaly and CNS symptoms but died during induction chemotherapy due to septicemia.

Our patient achieved hematological remission with Imatinib. In view of prolonged myelosuppression, Imatinib was withheld and patient rapidly progressed to lymphoid blast crisis with testicular and CNS involvement. Testicular involvement is extremely rare in blast crisis of chronic myeloid leukemia. In acute lymphoblastic leukemia, it is uncommon at presentation but being a sanctuary site, testicular relapses are common.

Literature reviews revealed only four reports of testicular involvement in blast crises of CML(1-4). Two of these four patients were children who had simultaneous involvement of testes and CNS. The prognosis of blast crisis in CML is poor. Remissions can be achieved using high dose chemotherapy and stem cell transplant but are usually short lived.

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REFERENCES

1. Beedassy A, Topolsky D, Styler M, Crilley P. Extramedullary blast crisis in a patient with chronic myeloid leukemia in complete cytogenetic and molecular remission on interferon alfa therapy. *Leukemia* 2000; 24: 733-735.
2. Carlson NL, Erichson G, Lissel L. Simultaneous meningeal and testicular lymphoblastic transformation of Philadelphia positive CML in a three year old. *Anticancer Res* 1990; 10: 1739-1741.
3. Ohyashiki JH, Ohyashiki K, Shimizu H, Miki M, Kimura N, Mori S, Fujisawa K, Akatsuka J, Toyama K. Testicular tumor as the first manifestation of B-lymphoid blastic crisis in a case of Ph-positive chronic myelogenous leukemia. *Am J Hematol* 1988; 29: 164-167.
4. Kusumakumari P, Kumar SR, Pillai GR. Unusual course of chronic myeloid leukemia. A report. *Am J Clin Oncol* 1994; 17: 19-21.

Bilateral Sternocleidomastoid Tumor in an Infant

Sternomastoid tumor of infancy (STOI) usually presents as a unilateral neck mass in infants 1 to 8 weeks of age(1). The bilateral cases are rare (2-8%)(2). We present here a case of an 8-week-old male child with the complaints of bilateral neck masses for 2 weeks. The child was born to primigravida, primipara, and young mother at home by trained birth attendant with uneventful antenatal and perinatal history. Physical examination revealed a firm, non-tender mass 7 cm × 2 cm in the lower third of the right sternocleidomastoid muscle (SCM) and another mass 3 cm × 1 cm in the middle third of the left SCM, with restricted mobility in horizontal plane (*Fig. 1*). The child had no limitation in passive movements of the neck. The child was diagnosed to have bilateral STOI and was started on physiotherapy.

Although, initial reports describe the right-

sided lesion predominance, recent reports indicate no such predominance(3). The STOI is reported to be 32.7% in lower third of SCM and 43.3% in the middle third while the whole of the SCM is involved in 12.7% of cases(3). The tumor is more common in primipara and infants born with prolonged or difficult labor esp. breech deliveries. The STOI may be associated with torticollis (0.3% to 1.9%) and is usually associated with facial asymmetry and plagiocephaly (900%)(3). Co-existence of

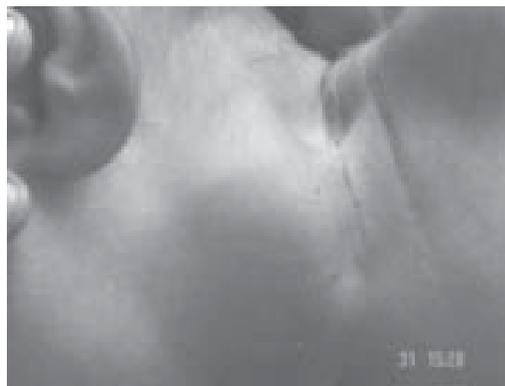


Fig. 1. Left sternocleidomastoid tumor.