To the Editor,

Arslantaş E, et al. reported “A rare cause of paraplegia: Myeloid sarcoma” in the issue of the Journal (1). I would like to remark on a few points not mentioned in this paper.

Extramedullary infiltrations (EI) of the soft tissue, also known as myelosarcoma (MS) or granulocytic sarcoma (GS) occur in approximately 4 to 5% of children with AML in Western countries (2). MS may develop before, during or after the occurrence of AML. AML is a clinically and genetically heterogeneous disease. Immunohistochemistry and immunophenotyping are important for the accurate diagnosis of AML. WBC count at diagnosis, FAB subtypes and cytogenetics are mainly important prognostic factors. For that reason, these analysis should be performed in all patients (3, 4, 5).

Cytogenetic analysis has become an important parameter for the diagnosis, prognosis and the treatment selection of AML. The t(8;21) is the most common abnormality and it is primarily found in M2 subtype. The inv (16) and t (16;16) associated with M4eo; t (15;17) and t (11;17) with M3 subtype are favorable whereas 11q23 associated with M4 and M5 variants is found unfavorable prognosis (2). XuJ, et al. informed that monosomal karyotypes is an independent risk factor for poor prognosis (5).

The prognostic significance of MS in childhood AML is still controversial. Some groups reported an unfavorable prognosis but others demonstrated a favorable outcome (3,4,6). Central nervous system leukemia and MS together with high initial WBC count at diagnosis are high risk factors for relapse (6).

Orbital granulocytic sarcoma (OGS) was first reported in 1971 by Çavdar, et al. from Turkey (7). Some researchers in Turkey also reported the fact that there is connection between AML and EI in several retrospective analyses of patients as well as in some case reports (8, 9, 10). Çavdar, et al. analyzed 33 patients presenting with OGS characterized by exophthalmos, proptosis, chemosis and orbital masses (figure 1). OGS was noted in 33 (27%) of 121 patients. These patients were compared with 41 cases with AML without OGS seen during the same period. The majority of the patients with OGS were from low socioeconomic status. The mean age 6,7 years and twenty four of the patients were male and nine were female. OGS occurs in patients with M4 or M5 subtypes. Hematological findings in two groups were not significantly different. Cytogenetic study revealed the presence of t(8;21) abnormality was frequent. The expression of tissue adhesion molecules CD56, CD44 and the expression of the MDR (p-gp) were more common in OGS cases. These findings might explain the different prognosis in patients with OGS (3, 11). The mean survival time of 8,7 months in the OGS group was significantly shorter than that of patients without OGS (28,6 months) ( p<0,01) treated before 1990 (3). Çavdar suggested that this type of presentation could indicate a “high risk” special biological entity (11). Further molecular and therapeutical studies are required to have a better understanding of the reasons for tissue involvement and to choose the most effective treatment options.

Keywords: Myeloid sarcoma, cytogenetic, prognosis
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References


Figure 1

Appearance of exophthalmos, proptosis, chemosis and orbital masses.
To the Editor,

We read the letter regarding our publication on ‘A Rare Cause of Paraplegia: Myeloid Sarcoma’.

Because of its different localization and symptoms, myeloid sarcoma is difficult to diagnose, in particular in patients without initial bone marrow involvement. Thus, the correct diagnosis of MS is often delayed and misdiagnosis rate is high. Our case referred to us complaint of hemiparesis and a subsequent thoracolumbar mass detected by magnetic resonance imaging (MRI) and no blasts were detected on peripheral blood film but bone marrow aspiration showed blasts compatible with acute myeloid leukemia (AML). In this regard, the aim of our publication was highlight to diagnostic challenges and rare presentations of MS in childhood.

We believe like the authors; immunohistochemistry, immunophenotyping, cytogenetic and molecular examination plays an important role in the diagnosis, prognosis and before creating a treatment plan these should be performed in all patients. Radiology, histology, immunophenotyping and molecular analyses are all essential for risk stratification and treatment planning. The next step is giving AML-based systemic chemotherapy and in some cases, as in our case, surgery and/or radiotherapy may be indicated.

We could not mention about clinical, cytogenetic and molecular features of MS extensively, as our publication was in the format Letter to Editor. We would like to thank the authors for their valuable contribution.

Best Regards,

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