Table 1 Pain in haematological wards: incidence and relative distribution of pain

syndromes in haematological diseases			
Disease	Total patients (%)	Patients with pain/ total patient (%)	No. of pain syndromes (%)
NHL	141 (33)	52/141 (37)	82(37)
AML	74(18)	32/74 (43)	45 (20)
MM	43(10)	33/43 (77)	42(18)
ALL	23(5)	10/23 (43)	19(8)
LPD	34(8)	8/34 (23)	10(5)
MPD	36(9)	12/36 (34)	15(7)
NMHD	71(17)	10/77 (13)	10(5)
Total	421 (100)	157 (37)	223 (100)

NHL: non-Hodgkin lymphomas; AML: acute myeloid leucemias; MM: multiple myeloma; ALL: acute lymphoblastic leukaemias; LPD: others chronic lymphoproliferative disorder; MPD: chronic myeloproliferative disorders; NMHD: non-malignant heamatological diseases.

## **Conflicts of interest**

We have no conflicts of interest to declare.

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# The 8p11 myeloproliferative syndrome in a 3-year-old child

We read the interesting report by Wong et al. describing 8p11 stem cell syndrome in a 14-year-old Chinese boy [1]. We wish to report our recent observations on a 3-year-old boy with T-cell lymphoma who was referred to the Pediatric Hematology Department with an increased white blood cell count and atypical mononuclear cells on peripheral blood smear. On admission, physical examination revealed cervical, submandibular, axillary and inguinal lymphadenopathies, and hepatosplenomegaly 7 and 8 cm, respectively, below the costal margins. Hemoglobin was 8.2 g/dL, white blood cell count  $146 \times 10^9 \text{ L}^{-1}$ , and platelet count  $188 \times 10^9 \text{ L}^{-1}$ . Peripheral blood smear showed 100% myeloblasts (Fig. 1). Bone marrow aspiration smear showed myeloblasts and dysplasia. Immunophenotype of peripheral blood blast was: CD7 26%, CD13 71%, CD14 56%, CD15 36%, CD33 98%, CD45 100%, CDw65 64%, and HLA-DR 86% positive. All other markers, including CD3, CD5, CD10, CD19, CD20, CD22, CD34, CD41a, CD42a and CD117, were negative. The patient was treated with Hacettepe University AML-MDS 2003 protocols. Since no regression in the size of lymph nodes was observed, the patient underwent cervical lymph node biopsy that showed neoplastic infiltration. Immunohistochemical study showed positive staining for CD3, CD5, CD2, CD4, CD8 and TdT, consistent with T-cell lymphoblastic lymphoma. The cytogenetic analysis of bone marrow showed t(8;13) (p11;q11) (Fig. 1). Because there was no matched related donor for the patient, the procedure to locate a matched unrelated donor was initiated.



Fig. 1. The peripheral blood smear and the partial karyotype, demonstrating the 8;13(p11;q11).

Our patient had a malignancy that involved both the lymphoid and myeloid lineage. The t(8;13) is found in both lymphoma and myeloid leukemia cells, supporting bi-lineage differentiation from transformed stem cell [2]. A rare atypical myeloproliferative disorder associated with chromosomal translocations involving the short arm of chromosome 8, region p11-p12, has been described [3,4]. The aberrant fusion proteins with oncogenic properties have a constitutive activation of FGFR1 tyrosine kinase that is triggered by dimerization and mediated by the FGFR1 protein partner [5]. Macdonald et al. reviewed 27 published cases with 8p myeloproliferative syndrome; 7 were aged 18 or less at presentation (mean age was 32 years ranged 3-84 years) [6]. Wong et al. reported 14-year-old boy who had 8p11 myeloproliferative syndrome and reviewed 14 published cases whose age ranged 18-68 years [1]. To the best of our knowledge, the present case is the one of the youngest patient to have the 8p11 myeloproliferative syndrome.

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*Contributions*. Murat A. Tuncer and Baris Kuskonmaz; designed research, wrote the manuscript, contributed to clinical follow up of the patient. Candas Kafalı contributed to clinical follow up of the patient. Zuhal Akcoren performed examination of lymph node biopsy specimen. Halil G. Karabulut and İbrahim Akalin performed cytogenetic analysis.

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# Treatment-related acute myeloid leukemia with 11q23 translocation following treatment with fludarabine, cyclophosphamide and rituximab

Standard therapies for lymphoma are associated with an increased risk of developing treatment-related myelodysplastic syndromes (t-MDS) or acute myeloid leukemias (t-AML).