

Material and methods

This 3-year cross sectional study was performed in Dr. Sheikh Children's Hospital in Mashhad on 50 children with ALL (n = 25) and NHL (n = 25). Half of them were received (n = 25) chemotherapy alone and half of them chemotherapy plus radiotherapy (n = 25). All children were in the remission phase. We assessed them by DEXA bone mineral densitometry (BMD) on the lumbar spine and femoral neck (hip). We also measured some bone biomarkers include calcium (ca), phosphorus (p), parathormone (PTH), alkaline phosphatase (ALP) in plasma. Results by age, height, sex and Body Mass Index (BMI) were adjusted with a special software.

Results Mean age was 8.28 ± 3.93 years. There was no significant difference on bone biomarkers (Ca, P, ALP, PTH) between ALL, NHL and also between the two treatment groups. Children with ALL had lower density at the hip and lumbar spine. (respectively p value < 0.001 and p value = 0.018). A total of 50 patients, the hip BMD showed normal results in 3 patients (6%), in 14 patients (28%) osteopenia were seen and 33 patients (66%) had osteoporosis. In whom received radiotherapy plus chemotherapy, one patient had normal BMD and 24 patients (48% of total patients) at the hip and 22 patients (44%) at lumbar spine had decreased BMD. In contrast, in whom had only chemotherapy, 24 patients (48%) had osteoporosis at hip and 23 (46%) at the lumbar spine. There was no significant difference in BMD between the sexes.

Conclusion Given that 94% of children had abnormal bone density, Seem to pay more attention to the metabolic status and BMD in children with cancer can develop appropriate strategies to improve health and quality of their life.

PO-0158 MANAGEMENT OF PATIENTS WITH ALL WHEN EXPOSED TO VZV

C Glancy, R Kennedy. Paediatrics, Craigavon Area Hospital, Belfast, UK

10.1136/archdischild-2014-307384.820

Aims Investigate the management of patients with ALL when exposed to Varicella Zoster Virus.

Method Retrospective study looking at all patients diagnosed with ALL between 2007–2011, a total of 60 patients. Each chart was looked at for any documented exposure to varicella and the management of the patient compared to standards set on local guidelines.

Results 58 patients in the audit. Age range was from 2 years to 15 years. 48 patients were tested at diagnosis leaving 10 patients with unknown Varicella status diagnosis.

24 patients reported exposure, 50% of these patient exposures were significant and required treatment. 19 of these were managed appropriately and 5 were not. 100% patients that were exposed and found not to be significant exposures did not receive treatment and therefore were managed appropriately. Of the patients that were exposed and not managed according to local guidance, one patient received IVIG 2/52 after a significant exposure when according to guidance they should have received oral aciclovir. Another patient did not have their status checked at diagnosis or when exposed. The remaining three patients did not have their immune status checked at diagnosis making their management inappropriate.

Conclusion Overall the management of the patients who contacted the medical team to report exposure to Varicella were managed appropriately. Plan is to have a sticker on the front of patient notes with varicella status on diagnosis, exposure and results.

PO-0159 CHILDHOOD DISSEMINATED RHABDOMYOSARCOMA OF UNKNOWN PRIMARY SITE MASQUERADING AS AN ACUTE HAEMATOLOGICAL MALIGNANCY- LITERATURE REVIEW APROPOS OF TWO UNUSUAL CASES

¹G Karpinsky, ¹E Rak, ²M Krawczyk, ²E Bien. ¹English Division Pediatric Oncology Scientific Circle, Medical University of Gdansk, Gdansk, Poland; ²Department of Pediatrics Hematology and Oncology, Medical University of Gdansk, Gdansk, Poland

10.1136/archdischild-2014-307384.821

Background Small round cell tumours, particularly rhabdomyosarcoma (RMS), may infiltrate bone marrow (BM), mimicking acute leukaemia – both clinically and in morphological assessment of myelogram.

Aim To analyse diagnostic and therapeutic dilemmas in children with RMS masquerading as acute leukaemia.

Methods A retrospective analysis of medical charts of a 14-year-old male and 15-year-old female admitted to Department of Paediatrics, Haematology and Oncology, Medical University of Gdansk, Poland in 2007 and 2013 and literature review.

Results Both patients were referred suspected of acute leukaemia presenting with weakness, pallor, bone pains, and enlarged peripheral lymph nodes (LN). Skin bruising, petechiae and wound bleedings were progressing. Laboratory tests showed anaemia, thrombocytopenia and features of acute DIC and ATLS. BM aspiration revealed blast cells suggestive for leukaemia. Flow cytometry failed to display lymphoid or myeloid antigens. Aspirational LN biopsy revealed small round blue cells, suggesting AML, non-Hodgkin's lymphoma or Ewing's sarcoma. Modified chemotherapy in all these malignancies was introduced to alleviate DIC-associated haemorrhages and enable LN resection. Finally the diagnoses of embryonal RMS (male) and alveolar RMS (female) were made. Administration of proper chemotherapy for metastatic RMS resulted in rapid neoplasms' regression and normalisation of DIC parameters.

Conclusion Clinical presentation of childhood RMS masquerading as acute leukaemia is unique and poses diagnostic problems, especially in patients with DIC-related haemorrhages. RMS should be included in differential diagnosis of any case presenting as a systemic disease with BM infiltration of cells mimicking leukemic blasts, but lacking lymphoid and myeloid antigens in immunophenotyping by flow cytometry.

PO-0160 INFECTIOUS EVENTS DURING INTENSIVE TREATMENT IN CHILDHOOD ACUTE LYMPHOBLASTIC LEUKAEMIA

¹K Martinova, ¹B Coneska-Jovanova, ¹S Kocheva, ¹A Jovanovska, ²E Bojadjeva. ¹Hematology and Oncology, University Children's Hospital, Skopje, Macedonia; ²Faculty of Medical Sciences, University Goce Delcev, Stip, Macedonia

10.1136/archdischild-2014-307384.822

Background Many children with acute lymphoblastic leukaemia (ALL) experience one or more infectious complications during treatment. Infections are important to study in children with ALL because they continue to contribute to morbidity and mortality, affect quality of life for children and their families and require considerable health resources to prevent and treat.

Aims To analyse the characteristics of infective episodes (I. E.) during intensive treatment (Protocol I, M and II) in children with ALL.

Methods Objective of this study were 55 patients with ALL who were treated according to ALL-BFM 90 and ALL-BFM 95 Protocol between January 2000 and December 2007 at the University