

## Editorial

# Hodgkin Disease or Langerhans Cell Histiocytosis: A Pitfall - The Importance of International Collaboration in Pediatric Oncology

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All over the world there are around 160,000 pediatric cancer cases diagnosed every year, and around 80% of them live in Low and Middle Income Countries (LMICs) [1,2]. Although, during the last decades significant improvements happen in the field of pediatric oncology and in developed countries the survival of children with cancer reached up to 80-90%, in LMICs survival can be as dismal as even 10% [3,4]. To improve the survival of children with cancer, international collaboration is of a great importance.

Here we discuss a case of 19-year-old male, who was admitted to our clinic with a history of long-lasting fever, knee and back pain, skin rash, and multiple bone lesions. The first manifestation of the disease was skin rash, which appeared about a year ago, was treated by a dermatologist with topical ointments without any effect. Afterwards patient started to have fatigue, fever, knee and back pain. CT of the chest and abdomen was performed, which revealed enlarged lymph nodes in the anterior mediastinum, paraaortic area and in hepatic truncus. In addition, there was a lesion in the right lung. A trephine biopsy and lymph node biopsy were performed. The trephine biopsy was unremarkable and the lymph-node biopsy showed non-specific lymphadenitis. The patient's condition deteriorated, the pain worsened, and a second CT showed progression of the initial findings. Biopsy of the right lung's lesion and of a mediastinal lymph node was performed. Then pathologist's conclusion was Langerhans Cell Histiocytosis (LCH). The repeated trephine biopsy also revealed "histiocytosis-like" picture and a treatment with low-dose Ara-C was commenced [5]. There was a good initial response with resolution of back pain and fever; however, after 3 courses fever and pain reappeared. Follow-up chest CT confirmed progression of the disease.

After a consultation with Austrian colleagues Hodgkin's disease (HD) was suspected and the biopsy material was sent to Vienna for a second opinion. The diagnosis was Hodgkin's disease, mixed type. The patient started treatment with BEACOPP [6]. (Bleomycin, Etoposide, Doxorubicin, Cyclophosphamide, Vincristine, Procarbazine, Prednisone) regimen and is now in a complete remission already for 3 years.

Disseminated bone lesions are quite rare in Hodgkin's disease, but are one of the hallmarks of Langerhans cell Histiocytosis. The definitive diagnosis of both disease require immunohistochemical staining, however, especially in developing world, it can be a challenge. This case highlights the importance of ongoing cooperation and twinning between the pediatric cancer institutions in developed and developing worlds to improve survival of children with cancer.

## References

- Rodriguez-Galindo C, Friedrich P, Alcasabas P, Antillon F, Banavali S, Castillo L, et al. Toward the Cure of All Children With Cancer Through Collaborative Efforts: Pediatric Oncology as a Global Challenge. *J Clin Oncol.* 2015; 33: 3065-3073.
- Howard SC, Metzger ML, Wilimas JA, Quintana Y, Pui CH, Robison LL, et al. Childhood cancer epidemiology in low-income countries. *Cancer.* 2008; 112: 461-472.
- Magrath I, Steliarova-Foucher E, Epelman S, Ribeiro RC, Harif M, Li CK, et al. Paediatric cancer in low-income and middle-income countries. *Lancet Oncol.* 2013; 14: 104-116.
- Israels T, Challinor J, Howard S, Arora RH. Treating Children With Cancer Worldwide--Challenges and Interventions. *Pediatrics.* 2015; 136: 607-610.
- Cantu MA, Lupo PJ, Bilgi M, Hicks MJ, Allen CE, Mc Clain KL. Optimal therapy for adults with Langerhans cell histiocytosis bone lesions. *PLoS One.* 2012; 7: 43257.
- Diehl V, Franklin J, Hasenclever D, Tesch H, Pfreundschuh M, Lathan B, et al. BEACOPP, a new dose-escalated and accelerated regimen, is at least as effective as COPP/ABVD in patients with advanced-stage Hodgkin's lymphoma: interim report from a trial of the German Hodgkin's Lymphoma Study Group. *J Clin Oncol.* 1998; 16: 3810-3821.