



Melanotic Neuroectodermal Tumor of Infancy

İnfantil Melanotik Nöroektodermal Tümörü

Mustafa Ozay

Department of Pediatric Hematology/Oncology, Faculty of Medicine, Atatürk University, Erzurum, Türkiye

To the Editor,

I read with interest the article entitled ‘Melanotic Neuroectodermal Tumour of Infancy (MNTI)’ published in your journal¹. This article addresses a critical tumor type that should be considered during the differential diagnosis of head and neck tumors (HNT) in infants.

Melanotic neuroectodermal tumor of infancy (MNTI) management is based on reports that indicate complete excision as the best treatment². However, the article states, “During the surgery, a tracheostomy was performed for the oral mass, which comprised a solid tumor that filled the oral cavity and exhibited infiltrative growth into the surrounding maxilla and base of the nose.” The standard approach to such a large tumor mass should involve a pediatric oncology consultation to use neoadjuvant chemotherapy to induce tumor shrinkage before surgery. However, this should be mentioned in the article. Pre-operative neoadjuvant chemotherapy may decrease the need for wide-margin resection and, consequently, the disfiguring effect of the surgery^{3,4}. Moreover, the article does not mention whether the surgery caused any disfiguration in the patient.

Some necessary conditions for the differential diagnosis of HNT were not sufficiently addressed. Melanotic neuroectodermal tumor of infancy is a neuroectodermal tumor; therefore, it can be easily confused with neural crest origin tumors. Elevated catecholamines and neuron-specific enolase should have triggered an investigation of the rosette pattern in the bone marrow for neuroblastoma. The approach should also include bone marrow aspiration, and the article should include the pre-and post-operative catecholamines and neuron-specific enolase levels.

Melanotic neuroectodermal tumor of infancy differential diagnosis includes other small blue round cell neoplasms of infancy, particularly neuroblastoma, Ewing sarcoma, alveolar rhabdomyosarcoma, desmoplastic small round cell tumors, and lymphoma¹. Mainly, alveolar rhabdomyosarcoma may occur in the head and neck. However, this needs to be adequately differentiated from MNTI.

During the evaluation of the pigmented mass in the head and neck, the differential diagnosis should have included, but not limited to, lymphoma, malignant melanoma, and clear cell sarcoma of soft tissue⁵.

In conclusion, this study addresses a rare head and neck neoplasm in infants. Furthermore, it significantly contributes to raising awareness about the differential diagnosis of HNT.

References

1. Çelik M, Tataroğlu SN, Uğraş S. Melanotic neuroectodermal tumor of infancy: a rare case report. *Kafkas J Med Sci.* 2022;12:175-178.
2. Chrcanovic BR, Gomez RS. Melanotic neuroectodermal tumour of infancy of the jaws: an analysis of diagnostic features and treatment. *Int J Oral Maxillofac Surg.* 2019;48:1-8.
3. Maroun C, Khalifeh I, Alam E, Akl PA, Saab R, Moukarbel RV. Mandibular melanotic neuroectodermal tumor of infancy: a role for neoadjuvant chemotherapy. *Eur Arch Otorhinolaryngol.* 2016;273:4629-63.
4. Davis JM, DeBenedictis M, Frank DK, Lessin ME. Melanotic neuroectodermal tumor of infancy: a wolf in sheep's clothing. *Ann Otol Rhinol Laryngol.* 2015;124:97-101.
5. Soles BS, Wilson A, Lucas DR, Heider A. Melanotic Neuroectodermal Tumor of Infancy. *Arch Pathol Lab Med.* 2018;142:1358-63.

İletişim/Contact: Mustafa Özay, Division of Pediatric Hematology/Oncology, Faculty of Medicine, Atatürk University, Erzurum / Türkiye • **Tel:** 0442 344 71 71 • **E-mail:** mustafaarjaozay@gmail.com • **Geliş/Received:** 25.10.2022 • **Kabul/Accepted:** 24.11.2022

ORCID: Mustafa Özay, 0000-0002-5656-9867