

WE is primarily a clinical diagnosis. Response to treatment may be diagnostic. The sensitivity and specificity of serum thiamine level in symptomatic patients is unclear, as the blood level may not reflect the brain thiamine level. A normal blood thiamine level, as in our patient, does not exclude the possibility of WE with MRI findings [5]. MRI is more sensitive than CT in WE [6]. In conclusion, all at-risk patients with undiagnosed altered mental status, oculomotor disorders, or ataxia must be evaluated for WE. Further studies are needed for examining the possible role of chemotherapeutics in the development of WE.

Keywords: Wernicke's encephalopathy, Thiamine deficiency, Pediatric leukemia

Anahtar Sözcükler: Wernicke ensefalopatisi, Tiamin eksikliği, Pediatrik lösemi

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References

1. Solmaz S, Gereklioğlu Ç, Tan M, Demir Ş, Yeral M, Korur A, Boğa C, Özdoğu H. A rare complication developing after hematopoietic stem cell transplantation: Wernicke's encephalopathy. *Turk J Hematol* 2015;32:367-370.
2. Park SW, Yi YY, Han JW, Kim HD, Lee JS, Kang HC. Wernicke's encephalopathy in a child with high dose thiamine therapy. *Korean J Pediatr* 2014;57:496-499.
3. Parkin AJ, Blunden J, Rees JE, Hunkin NM. Wernicke-Korsakoff syndrome of nonalcoholic origin. *Brain Cogn* 1991;15:69-82.
4. Beh SC, Frohman TC, Frohman EM. Isolated mammillary body involvement on MRI in Wernicke's encephalopathy. *J Neurol Sci* 2013;334:172-175.
5. Davies SB, Joshua FF, Zagami AS. Wernicke's encephalopathy in a non-alcoholic patient with a normal blood thiamine level. *Med J Aust* 2011;194:483-484.
6. Elefante A, Puoti G, Senese R, Coppola C, Russo C, Tortoro F, de Divitiis O, Brunetti A. Non-alcoholic acute Wernicke's encephalopathy: role of MRI in non typical cases. *Eur J Radiol* 2012;81:4099-4104.



Address for Correspondence/Yazışma Adresi: Hande KIZILOCAK, M.D.,
İstanbul University Cerrahpaşa Faculty of Medicine, Department of Pediatric Hematology-Oncology,
İstanbul, Turkey Phone : +90 533 648 21 88
E-mail : handekizilocak2@yahoo.com

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Comment: In Response to “Megaloblastic Anemia with Ring Sideroblasts is not Always Myelodysplastic Syndrome”

Yorum: “Halka Sideroblastlı Megaloblastik Anemi Her Zaman Miyelodisplastik Sendrom Olmayabilir”e Yanıt

Smeeta Gajendra

Medanta-the Medicity, Department of Pathology and Laboratory Medicine, Gurgaon, India

To the Editor,

I read the letter “Megaloblastic Anemia with Ring Sideroblasts is not Always Myelodysplastic Syndrome” by Narang et al., recently published in this journal [1]. The manuscript is well written with a description of a very informative case of megaloblastic anemia with ring sideroblasts in a young female of 18 years old. Ring sideroblasts are associated with abnormal expression of several genes of heme synthesis or mitochondrial iron processing [2]. After exclusion of non-neoplastic causes of ring sideroblasts such as congenital/hereditary sideroblastic anemia and acquired reversible sideroblastic anemia (drugs, toxins, or nutritional deficiency), myelodysplastic syndrome (MDS) can be strongly suspected, particularly in elderly patients. The presence of ring sideroblasts alone is not sufficient for a diagnosis

MDS; the presence of refractory cytopenia(s) is a prerequisite. Refractoriness can only be established after exclusion of secondary causes, most importantly nutritional deficiencies. After that, a complete evaluation of the erythroid, myeloid, and megakaryocytic lineages of bone marrow is essential. At least 15% ring sideroblasts are required for the diagnosis of MDS with ring sideroblasts (MDS-RS) in cases lacking mutations in the spliceosome gene *SF3B1*. *SF3B1* mutations are found in 60%-80% of patients with refractory anemia with ring sideroblasts (RARS) or RARS with thrombocytosis (RARS-T) and are associated with favorable prognosis [3]. In the recent World Health Organization (WHO) 2016 classification, cases with ring sideroblasts and multilineage dysplasia without excess blasts or isolated del (5q) abnormality are categorized as MDS-RS. Recent

studies have shown that the percentage of ring sideroblasts in MDS is not prognostically important. Thus, in the revised WHO classification, a diagnosis of MDS-RS may be made even in the presence of only 5% of ring sideroblasts in cases with *SF3B1* mutation. MDS-RS cases will be subdivided into cases with single lineage dysplasia (previously classified as RARS) and cases with multilineage dysplasia (previously classified as refractory cytopenia with multilineage dysplasia). Furthermore, RARS-T has been accepted as an entity and termed MDS/myeloproliferative neoplasm (MPN) with ring sideroblasts and thrombocytosis (MDS/MPN-RS-T) in the 2016 classification. Unlike MDS-RS, the number of ring sideroblasts required for a diagnosis of MDS/MPN-RS-T is 15%, irrespective of the presence or absence of a *SF3B1* mutation [4]. As described in the case of Narang et al., in a young female of 18 years old without a history of persistent refractory cytopenia(s), a diagnosis of MDS can only be established after exclusion of secondary causes such as nutritional deficiencies [1]. An adequate trial with hematinics (vitamin B12, folic acid, and pyridoxine) is needed in such cases. After exclusion of secondary causes, if cytopenia(s) still persists, a repeat bone marrow examination with cytogenetic and molecular studies can be considered to establish the diagnosis of a clonal hematopoietic disease such as MDS or MDS/MPN.

Keywords: Refractory anemia with ring sideroblasts, RARS with thrombocytosis, Myelodysplastic syndrome/myeloproliferative neoplasm with ring sideroblasts and thrombocytosis

Anahtar Sözcükler: Halka sideroblastlı refrakter anemi, Trombositoz ile birlikte RARS, Halka sideroblast ve trombositoz ile birlikte miyelodisplastik sendrom/miyeloproliferatif neoplazi

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References

1. Narang NC, Kotru M, Rao K, Sikka M. Megaloblastic anemia with ring sideroblasts is not always myelodysplastic syndrome. *Turk J Hematol* 2016;33:358-359.
2. Cazzola M, Invernizzi R. Ring sideroblasts and sideroblastic anemias. *Haematologica* 2011;96:789-792.
3. Papaemmanuil E, Cazzola M, Boultonwood J, Malcovati L, Vyas P, Bowen D, Pellagatti A, Wainscoat JS, Hellstrom-Lindberg E, Gambacorti-Passerini C, Godfrey AL, Rapado I, Cvejic A, Rance R, McGee C, Ellis P, Mudie LJ, Stephens PJ, McLaren S, Massie CE, Tarpey PS, Varela I, Nik-Zainal S, Davies HR, Shlien A, Jones D, Raine K, Hinton J, Butler AP, Teague JW, Baxter EJ, Score J, Galli A, Della Porta MG, Travaglino E, Groves M, Tauro S, Munshi NC, Anderson KC, El-Naggar A, Fischer A, Mustonen V, Warren AJ, Cross NC, Green AR, Futreal PA, Stratton MR, Campbell PJ; Chronic Myeloid Disorders Working Group of the International Cancer Genome Consortium. Somatic *SF3B1* mutation in myelodysplasia with ring sideroblasts. *N Engl J Med* 2011;365:1384-1395.
4. Arber DA, Orazi A, Hasserjian R, Thiele J, Borowitz MJ, Le Beau MM, Bloomfield CD, Cazzola M, Vardiman JW. The 2016 revision to the World Health Organization classification of myeloid neoplasms and acute leukemia. *Blood* 2016;127:2391-2405.

 Address for Correspondence/Yazışma Adresi: Smeeta GAJENDRA, M.D., Medanta-the Medicity, Department of Pathology and Laboratory Medicine, Gurgaon, India
Phone : +09013590875
E-mail : drsmeeta@gmail.com

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Therapeutic International Normalized Ratio Monitoring

Terapötik Uluslararası Normalleştirilmiş Oran İzlemi

Beuy Joob¹, Viroj Wiwanitkit²

¹Sanitation 1 Medical Academic Center, Bangkok, Thailand

²Hainan Medical University, Haikou, China

To the Editor,

The report on "Warfarin dosing and time required to reach therapeutic international normalized ratio in patients with hypercoagulable conditions" was very interesting [1]. Kahlon et al. concluded that "Patients with hypercoagulable conditions require approximately 10 mg of additional total warfarin dose and also require, on average, 2 extra days to reach therapeutic international normalized ratio (INR) as compared to controls."

The big concern in this report regards the technique used for INR measurement. Kahlon et al. did not mention this and might not have noted the problem of measurement of INR in the follow-up of the patient. The quality control of the measurement is very important and measurements from different laboratory techniques and settings can be a factor leading to error in laboratory results [2,3]. It is noted that the local calibration in correcting the variability in INR determination and the difference between batches has to be controlled [4].