

[LETTERS TO THE EDITOR]

**Difference between the MRI Findings for
Neuro-Behçet Disease and Neuro-Sweet Disease**

Key words: neuro-Behçet, disease, neuro-Sweet disease,
Gadolinium-enhanced MRI

(Intern Med 61: 2701, 2022)

(DOI: 10.2169/internalmedicine.9127-21)

To the Editor While searching for articles on neuro-Behçet Disease, I came upon the article, “Neuro-Behçet Disease, Neuro-Sweet Disease, and Spectrum Disorders” (1) written by Dr. Kinya Hisanaga, which I read with great interest. I found it to be an instrumental article for learning about neuro-Behçet Disease, which meets the diagnostic criteria for probable neuro-Sweet disease. We previously encountered a case of neuro-Sweet disease without skin lesions. A 26-year-old man was admitted to our hospital with a chief complaint of recurrent headaches and seizures. He was suspected of having meningoencephalitis. Blood tests revealed no evidence of viral infection or autoimmune encephalitis. The patient was treated with prednisolone, and his symptoms improved rapidly. HLA typing was positive for B54 and cw1. Based on this finding and the good response to the steroid treatment, a diagnosis of neuro-Sweet disease was made. Magnetic resonance imaging (MRI) of the head revealed extensive lesions with no enhancement of gadolinium-based contrast medium on T1-weighted imaging. In contrast to the MRI findings of patients with active neuro-Behçet disease, in which contrast enhancement of brain lesions is usually observed (2), the MRI findings of

our patient prompted us to review cases of neuro-Sweet disease presenting with encephalitis. We found that contrast enhancement was absent in most of the cases (9/15), and when it was observed (2/15), the effect was faint compared to that in neuro-Behçet disease. A clear difference was apparent in the effects of contrast enhancement on the active lesions in MRI between neuro-Behçet disease and neuro-Sweet disease. Therefore, the presence or absence of contrast effects in the active lesions may be useful for differentiating neuro-Behçet disease from neuro-Sweet disease. The reason for the difference in contrast effects, as described in the aforementioned article by the author, is that vasculitis is frequently observed in neuro-Behçet disease, while there is little or no vasculitis in neuro-Sweet disease, suggesting the preservation of the blood-brain barrier.

The authors state that they have no Conflict of Interest (COI).

Rui Shimazaki and Keizo Sugaya

References

1. Hisanaga K. Neuro-Behçet disease, neuro-sweet disease, and spectrum disorders. *Intern Med* **61**: 447-450, 2022.
2. Koçer N, Islak C, Siva A, et al. CNS involvement in neuro-Behçet syndrome: an MR study. *AJNR Am J Neuroradiol* **20**: 1015-1024, 1999.

The Internal Medicine is an Open Access journal distributed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view the details of this license, please visit (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).