[PICTURES IN CLINICAL MEDICINE]

Anti-agalactosyl Immunoglobulin G Antibodies in Probable Rheumatoid Meningitis

Keiko Hatano¹, Kazuto Katsuse¹, Takeshi Suzuki² and Hideji Hashida¹

Key words: rheumatoid meningitis, rheumatoid factor, anti-cyclic citrullinated-peptide antibody, anti-agalactosyl immunoglobulin G antibody, antibody index

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Picture.

¹Department of Neurology, Japanese Red Cross Medical Center, Japan and ²Department of Allergology and Rheumatology, Japanese Red Cross Medical Center, Japan

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Correspondence to Dr. Keiko Hatano, keikohatano@hotmail.co.jp

A 53-year-old woman with rheumatoid arthritis (RA) in remission presented with headache, nausea, and non-fluent aphasia. After ruling out infection, tumors, and sarcoidosis, she was diagnosed with probable rheumatoid meningitis (RM) (1) based on elevated rheumatoid factor (RF), anti-cyclic citrullinated-peptide antibodies (anti-CCP), anti-agalactosyl immunoglobulin G antibodies (CARF) in serum and cerebrospinal fluid (CSF), elevated antibody index (2) of anti-CCP and antibody index of CARF, magnetic resonance imagings (MRI) showing abnormal meningeal enhancement on gadolinium enhanced T1-weighted images (Gd-T1WI) and hyperintensity on fluid-attenuated inversion recovery (FLAIR) images (Picture A), and a positive response to steroids. Before starting treatment, her symptoms and MRI findings (Picture B) deteriorated, but after starting treatment with steroids on day 8, they began to improve (Picture C, D) on day 13.

The antibody index of CARF and CARF in CSF reflected the disease activity with a higher sensitivity than the antibody index of anti-CCP, anti-CCP in CSF and serum, CARF in serum, and IgG index (Picture E-H), thus suggesting that

CARF in RM plays an intracranial pathophysiological role. To our knowledge, this is the first report to identify such a role for CARF in RM which also included the MRI findings. The activity of RA did not correlate with the activity of RM because the patient did not suffer a worsening of arthritis.

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

References

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