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Teaching NeuroImage: Seizures as the Initial Symptom of Relapsing Polychondritis

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A 41-year-old man presented with generalized tonic-clonic seizures. MRI revealed left sub-insular and right frontal cortex lesions (Figure.1). CSF analysis showed 17 white cells/mm³ (lymphocytes 92%), normal protein and glucose. The infection and autoimmune screening were negative. On day 3, bilateral auricles swelling and episcleritis emerged (Figure 2). Biopsy of left auricle revealed perivascular lymphocytic infiltration (Figure 2), consistent with relapsing polychondritis (RP). The patient's symptoms improved after oral prednisolone.

Only 3%-13.81% of RP patients exhibited CNS involvement and CNS manifestations were heterogeneous¹. RP with onset of seizures is rare. A previous autopsy report showed extensive cerebral and systemic vasculitis in RP².

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References

1. Cao X, Zhu L, Li H, et al. Comparison of relapsing polychondritis patients with and without central nervous system involvement: A retrospective study of 181 patients. *International journal of immunopathology and pharmacology*. 2021;35:20587384211000547. doi:10.1177/20587384211000547
2. Stewart SS, Ashizawa T, Dudley AW, Goldberg JW, Lidsky MD. Cerebral vasculitis in relapsing polychondritis. *Neurology*. 1988;38(1):150-2. doi:10.1212/wnl.38.1.150

Figure 1. (A-D) MRI FLAIR showed hyperintensities and post-contrast T1-weighted showed partial enhancement in left sub-insular and right frontal cortex. (E,F) Two months later, MRI FLAIR revealed a size reduction of lesions.

Figure 2. (A-C) Bilateral auricular chondritis and episcleritis. (D) Biopsy of left auricle revealed perivascular lymphocytic infiltration (H&E).

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