A Case of the Week

Case 410

A ninety-year-old female presented in our hospital for bone fracture of proximal part of fibula hit by truck. Before the accident, she could make a life alone, but after the accident, she came to be in a state of sleeping tendency. She had experienced brain infarction approximately one month ago. She took brain MRI for further investigation (Figs. 1-3).

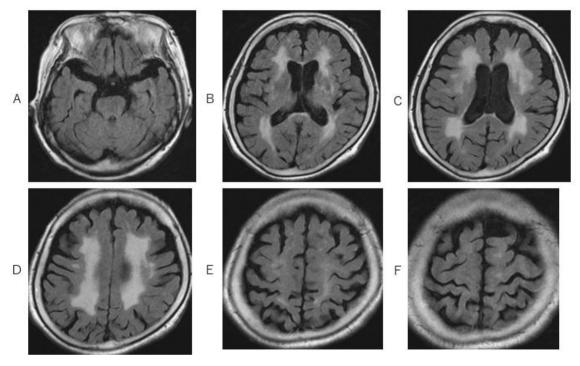


Fig.1 No abnormal high density corresponded to grey matter on fluid attenuated inversion recovery (FLAIR)(A). High signal intensity corresponded to deep white matter in frontal, parietal and occipital lobes on FLAIR(B-F).

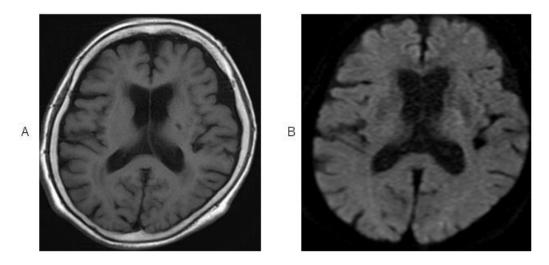


Fig.2 Localized low signal intensity at posterior limb of left internal capsule is depicted on T1WI(A).

Meanwhile, slight high signal intensity on Diffusion WI (B).

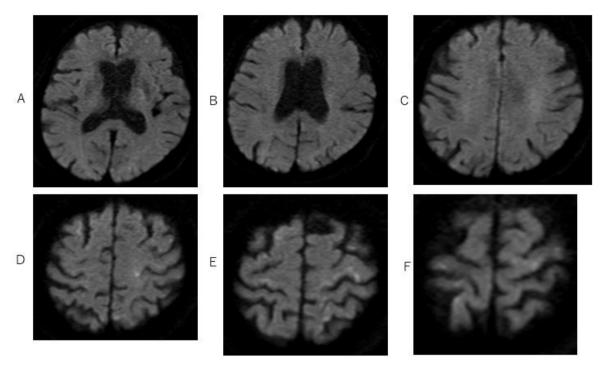


Fig.3 High signal intensities at left genu of internal capsule (A) and at bilateral cortex of bilateral frontal, parietal lobes are depicted on Diffusion WI MRI (D-F).

What causes high signal intensity of deep white matter on FLAIRMRI?

- 1. Brain infarction
- 2. Arteriosclerosis of small vessels
- 3. Myelin degeneration
- 4. Glymphatic system disorder

answer