Clinical picture

Butterfly in the brain!!

A 47-year-old Indian male presented with headache and magnetic resonance imaging (MRI) brain was done to rule out any structural cause. Initial sagittal localizer image (Figure 1, panel A), revealed an interesting and perplexing finding. A large bizarre, butterfly-shaped lesion was seen to occupy larger portion of the brain. MRI scanning was abandoned and computed tomography (CT) was done to ascertain the morphology and location of the object responsible for such a strong susceptibility artefact on MRI. Cranial CT (Figure 1, panel B) showed a small (few millimeter in diameter) round high-density object near lateral ventricular margin producing streak artifacts, which resembled a metallic pellet. Occupational history revealed that he was a retired army soldier and on direct questioning, he remembered being injured in a grenade explosion many years ago.

Unknown or forgotten metallic foreign bodies or splinters pose serious danger in case the patient undergoes MRI in future as heating and slight movement of such objects lying close to blood vessels, eloquent cerebral structures, intraocular or close to optic nerve can lead to catastrophic consequences. Modern MRI units that are equipped with high-field strength magnets further raises the risks associated with retained ferromagnetic metallic bodies.

This report reasserts the importance of following a proper screening protocol for patients undergoing imaging at every MR facility. Occupational history is indispensable in all cases. In addition to routine use of metal detectors, further screening with orbital or skull radiograph and/or CT should be performed wherever there is higher risk.

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References