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Letter to the Editor

An Unsuspected MR Projectile: A "Wooden" Chair with Metal Bracing

WE ARE GRATEFUL to the editors of the *Journal of Magnetic Resonance Imaging* for the opportunity to remind the medical community that safe MR operation requires continuous vigilance.

Metallic objects have accidentally become dangerous projectiles in MR suites (1–3). We were recently involved in a case that demonstrates how an apparently "wooden" object can become a projectile and injure a patient, hospital staff member, or observer in an MR environment.

A patient was having his abdomen imaged on a Siemens 1.5-T, actively-shielded, Symphony Maestro Class MR unit. His wife was sitting within the room comforting him. The wooden chair she was seated on had resided within the confines on the MR suite since its opening 10 months prior. As she stood up and moved the chair closer to the MR unit to talk with her husband, the chair unexpectedly began moving toward the MR unit. She instinctively reached out her hands to hold the chair back. The chair accelerated toward the magnet and forcefully trapped the fifth finger of her right hand between the MR unit and the chair. Two people were required to separate the chair from the MR unit. The woman suffered a 1-cm laceration of the ventral distal phalanx, significant soft tissue damage, and numbness of the injured digit, requiring emergency care. Luckily, she did not suffer more serious harm, and her husband, who was in the MR unit at the time, was uninjured. The MR unit was not damaged.

Examination of the wooden chair revealed that beneath the cushioned seat was a square, black metallic bracing plate, approximately 52 cm to a side. This large plate was not visible until the chair was inverted (Fig. 1), and went unrecognized until this unfortunate accident occurred. A handheld magnet confirmed the magnetic properties of the bracing plate.

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Figure 1. Wooden chair, frontal oblique view (**a**) and undersurface oblique view demonstrating the metallic frame (arrows, **b**).

This event occurred during a late evening, “after hours,” imaging session. The chair was removed from the MR suite by the radiology resident, who administered first aid to the injured woman. By the time the resident returned the next morning, the chair had been put back in the MR suite. A general memorandum was issued to warn all physicians and technologists that the chair was not to be placed in the MR suite again.

The fact that the chair was put back in the MR suite the following morning emphasizes how following established routines can lead to unanticipated dangerous situations. Safe MR operation requires continuous vigilance.

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REFERENCES

1. Landrigan C. Preventable deaths and injuries during magnetic resonance imaging. N Engl J Med 2001:345:1000–1001.
2. Chaljub G, Kramer LA, Johnson III RF, Johnson RF, Singh H, Crow WN. Projectile cylinder accidents resulting from the presence of ferromagnetic nitrous oxide or oxygen tanks in the MR suite. Am J Roentgenol 2001:177:27–30.
3. Colletti PM. Size “H” Oxygen Cylinder: accidental MR projectile at 1.5 Tesla. J Magn Reson Imaging 2004:19:141–143.