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LETTER TO THE EDITOR

Absorbable plate degradation mimicking local abscess: letter to the editor

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Dear Editor:

Absorbable plates are often used for bone fixation in craniosynostosis surgery. Degradation usually causes local swelling, weeks or several months after surgery, and are self-limiting. We present a rare case of local reaction-mimicking abscess.

The patient was operated at the age of 6 months for cranial remodeling as treatment of metopic craniosynostosis. Three absorbable plates (ResorbX, KLS Martin, Jacksonville, FL, USA) were used—one on each side of his cranium (temporal region, facing the outer side of the skull, using 8 hole plates), and one in the middle of his forehead—using an 8 hole plate, facing the inner side of the skull.

The child presented 10 months after surgery with a history of several months of swelling around the temporal and forehead regions—overlying the plates. The patient had no fever, or other systemic inflammation markers. He presented that day with significant swelling of the regions opposing the temporal plate locations, with significant fluid collections in the temporal regions, and near breakdown of the skin on one side.

A brain MRI showed local fluid collections with enhancement of the capsule, but with no continuity between regions, and no intracranial involvement in the temporal regions, but with a small epidural collection extending to the subcutaneous region in the forehead. Fluid restriction was evident on diffusion-weighted sequences.

The temporal regions were surgically revised, draining pus-looking material, as well as ill-defined necrotic material. No residual plates were evident. The forehead collection was tapped percutaneously. All cultures were negative. Pathology of the necrotic material was compatible with foreign body reaction.

The child is followed since with no recurrence over a 6-month course.

We found limited prior publications regarding local inflammatory responses to these plates, although they are extremely rare, they tended to occur about 2 months after surgery [1]. Another series described a benign swelling especially in "low fat" regions to occur about 6–8 months after surgery in about 4% [2]. Foreign body reactions to these plates, leading to plate exposure or extrusions, occurring up to 10 months after surgery, are extremely rare too [3]. Although rare, absorbable plates have been described to cause an allergic reaction [4]; however, this will not explain the "pus-mimicking" findings, as well as the absence of any systemic symptoms of allergy in the current patient.

Thus, our report of "pus-mimicking" swelling and skin breakdown is rare, but should be acknowledged by surgeons using these plates.

Compliance with ethical standards

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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