

CLINICAL IMAGE

Massive subdural empyema

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CASE REPORT

A 10-month-old baby boy was referred to us for further imaging for an evolving spastic quadriplegic cerebral palsy and developmental delay. History was notable for a subdural hemorrhage due to trauma, with an associated skull fracture, 4 months prior to the current presentation. Magnetic resonance imaging (MRI) revealed massive subdural empyema affecting both cerebral hemispheres, with heterogenous signal within (Fig. 1A, arrow). Septations were also noted, which enhance post-gadolinium administration (Fig. 1B, arrow). Hydrocephalus was

evident. The patient was then referred to the neurosurgical service in a neighboring hospital for a planned mini-craniotomy.

DISCUSSION

Subdural empyemas may result from various causes; these include sinusitis, meningitis, otitis media, operative infection and previous head trauma. Infection of a post-traumatic extra-axial hemorrhage, as in our case, may progress in a prolonged, indolent course [1]. The clinical manifestation, that of an evolving

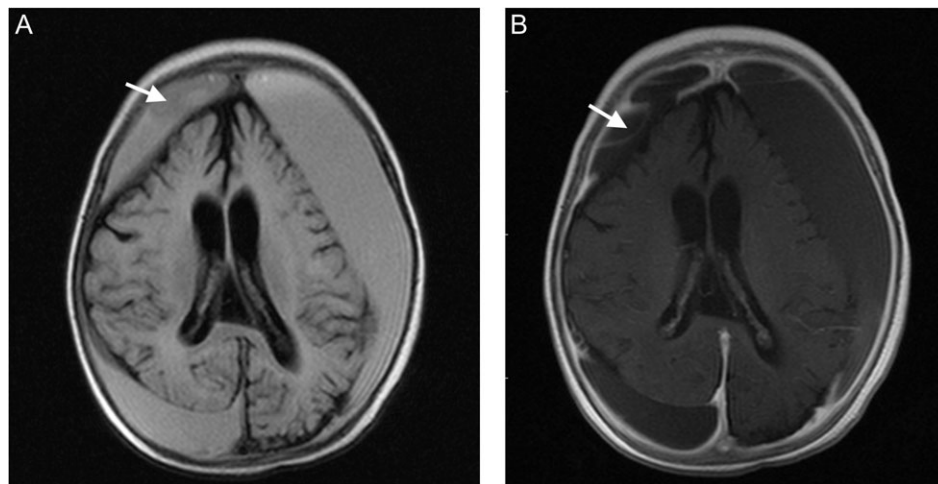


Figure 1: (A)—Axial MRI image (fluid-attenuated inversion recovery sequence) showing heterogenous signal intensity within the subdural empyema (arrow). (B)—Axial MRI image (post-gadolinium) showing septations within the empyema, which enhance (arrow).

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spastic quadriplegic cerebral palsy and developmental delay may have misled the course of management.

Recommended medical therapy includes the third generation cephalosporins with metronidazole; this combination provides broad coverage, as well as good cerebrospinal fluid and abscess penetration [2]. Once blood cultures are available, medical therapy may be tailored accordingly. No exact duration of therapy has been recommended universally, but an intravenous therapy for 2 weeks, followed by an oral route up to a total of 6 weeks is acceptable.

Surgical drainage is required for proper management. One study reported a higher success rate from craniotomy compared to burr hole drainage [3], owing to the higher rate of recurrence when a burr hole drainage is pursued.

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None.

CONFLICT OF INTEREST STATEMENT

None declared.

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ETHICAL APPROVAL

Not required.

CONSENT

Informed consent was obtained from the patient's parents for the publication of this case.

GUARANTOR

M.S.F is the guarantor for this study.

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