Rare Presentation of Brain Abscess

Sir,

Brain abscesses are life-threatening infections which pose significant health care problem in developing countries where living conditions remain poor and chances of infections are high. Commonest causes in older children include congenital heart diseases with right to left shunt, chronic otitis media, mastoiditis, dental infections, penetrating head injury, immune deficiency, endocarditis, and soft tissue infection of the face and scalp. Soft tissue infections of face and scalp constitute only 1 - 4% patients of pediatric brain abscess.

Data reporting this route of infection spread is limited. In June 2015, a case was reported where they mentioned local spread of mid scalp infection to brain, leading to brain abscess in a 65-year male. Here, we report a rare presentation of brain abscess in an otherwise healthy child.

A 7-year girl presented to outpatient department with complaints of fever for one month and two painful swellings, one on either side of forehead each in the temporal region, gradually increasing in size, with no active discharge, for 15 days. There was no history of significant weight loss. No history of previous recurrent infections, especially ear/nasal discharge and toothache.

She was vitally stable with anthropometric measurements falling at 10th centile for her age. She had two swellings in both temporal regions (Figure 1) which were soft, warm, tender, non-discharging and fluctuant, each measuring approximately 8 x 10 cm. Paucity of movements was noticed in left half of the body with uncrossed hemiplegia (4/5 power on left half of the body) and left sided facial nerve weakness. On the basis of this clinical evaluation, the differentials of space occupying lesion (brain abscess, brain tumor), acquired immune deficiency, and infective endocarditis were considered.

Her septic and metabolic workup was normal. Blood and pus culture and sensitivity showed no growth. HIV testing was negative. Echocardiography and ENT evaluation was normal. Her CT scan brain with contrast (Figure 2) showed two rim, enhancing lesions in frontal lobe and along the parietal bone causing midline shift towards left and impending uncal herniation with normal continuity of bone. After ruling out the common causes that could lead to hematogenous spread, negative immune deficiency workup and in the absence of scalp bone fracture/breach at the site of infection, final diagnosis reached was right sided frontal and parietal lobe brain abscess due to local spread of infection through emissary and diploic veins (which communicate scalp veins and dural venous sinuses) or local lymphatics.

Urgent craniotomy was done. Abscesses were drained. Patient was started with intravenous vancomycin, ceftriaxone and metronidazole. Postoperative CT scan showed disappearance of midline shift and mass effects with only small residues of brain abscess left. Patient was kept on antibiotics for 8 weeks. She made a good recovery. Her follow-up CT scan confirmed complete resolution of brain abscess.

Soft tissue infection of scalp is a critical risk factor of cerebral abscess even in the absence of bacteremia.
and the dreaded diagnosis may be missed or delayed by clinicians. It should be dealt rigorously like ours. Without timely interventions, serious results could occur while prompt treatment of local infection may avert major life-threatening complications.

REFERENCES


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