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Case Report *Volume 6 Issue 1*

Primary Spheno-Clival Tuberculoma-Rare Lesion

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Abstract

Tuberculosis (TB) is caused by M tuberculosis and atypical mycobacteria is very common in India. Reasons being poor socio-economic condition, overcrowding and poor nutrition. Only 1-2 % of these patients have skeletal or bony involvement. Half of these patients have spinal involvement. TB accounts for only 0.3–1% of all spinal TB [1]. But primary tuberculoma of clivus sparing craniovertebral junction is rarely reported. Only 4 cases of primary tuberculoma of clivus without any systemic involvement have been reported in literature. These patients need urgent surgical intervention followed by medical management before tubercular meningitis develops. So, we report a rare case of spheno clival tuberculosis in a paediatric patient, also difficulty in diagnosis and management of same.

Keywords: Clival Tuberculoma; Tuberculosis; Lesion

Abbreviations

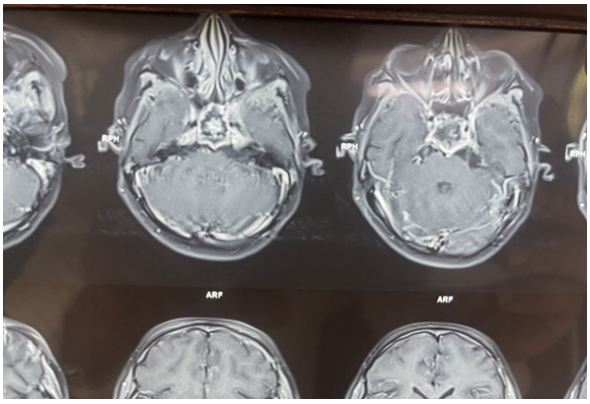
TB: Tuberculosis; CVJ: Cranio- Vertebral Junction.

Case Report

A 12-year-old girl came to us with severe headache. She also had mild fever with significant weight loss as told by parents. On neurological examination, she was conscious irritable due to severe headache. There was no neck rigidity or features suggestive of meningitis. She was investigated further.

On radiological examination, MRI brain with contrast was suggestive of ring enhancing lesion withing the clivus. There was no intracranial extension. There was no craniovertebral junction involvement or AAD.

Rest of the brain parenchyma and spine were normal. So primary Clival tuberculoma was suspected (Figure 1,2a and 2b).



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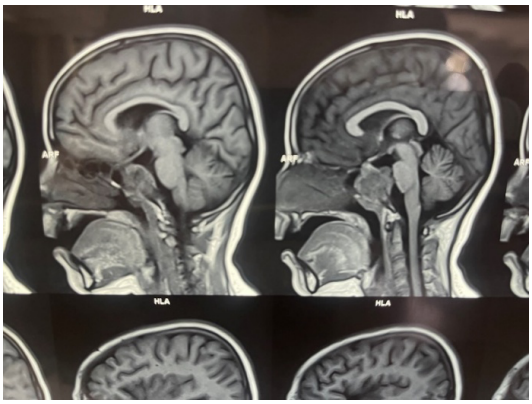

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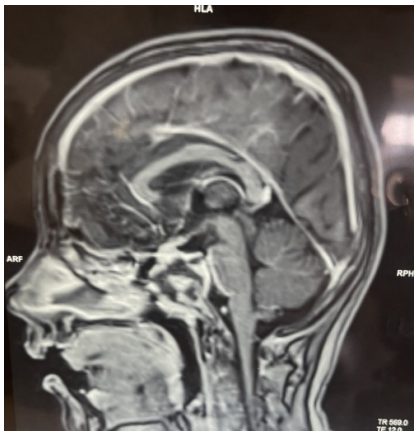
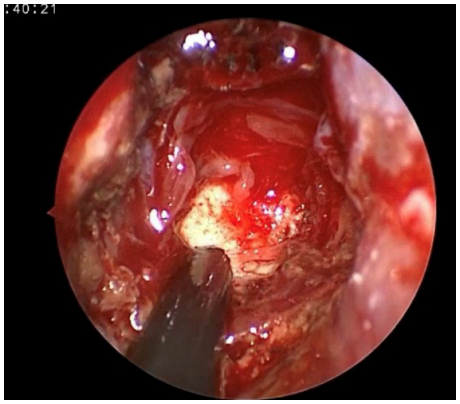


2b

Figure 1, 2a and 2b: MRI brain with contrast showing the clival lesion.

Patient underwent endoscopic trans nasal excision of lesion. Intraoperatively sphenoid sinus was filled with green coloured necrotic material, non-foul smelling. There was erosion of clivus. Complete debridement of necrotic material was done. Postoperative course was uneventful, and patient was discharged after 7 days (Figure 3a,b and 4).



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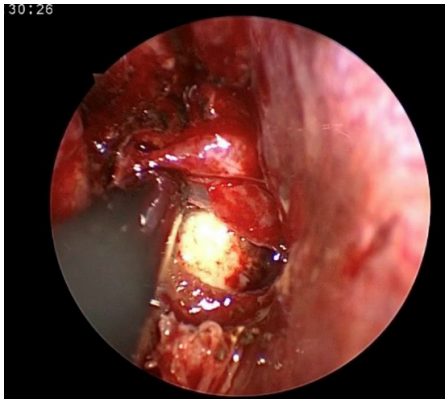

3b

Figure 3a and 3b: Intraoperative image showing pus filling the sphenoid.

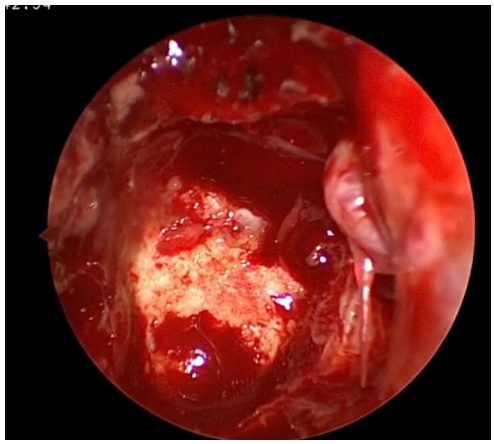

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Figure 4: Intraoperative image showing the clival erosion.

Histopathology was suggestive of chronic granulomatous lesion. Culture of the tissue was suggestive of mycobacterium tuberculosis. She was started on steroids and anti-tubercular drugs. Patients underwent MRI brain with CT scan of thorax and abdomen to find other lesions, but no other focus was found. On blood investigations no evidence of immunosuppression was found.

Patients were readmitted again after 2 weeks with fulminant tubercular meningitis in drowsy state. Despite aggressive medical management she succumbed to disease after 3 days.

Discussion

Skull base involvement in tuberculosis is very rare (< 1%). Less than 10 cases of spheno clival tuberculosis have been reported in literature till date. Tuberculosis spreads to clivus or skull base mainly through haematogenous routes. Spread from adjacent pharyngeal lymph nodes is also seen [2,3].

Preoperative diagnosis of clival tuberculosis is difficult as imaging shows diffuse involvement of clivus mimicking clival chordoma. These patients usually present with headaches as seen in our patients, multiple cranial nerve palsies due to leptomeningeal involvement, weight loss, fever.

Management of spheno clival tuberculosis involves early surgical intervention with complete debridement of lesion. Followed with long term anti tubercular treatment. Aggressive anti tubercular treatment with steroids has good outcome in immunocompetent patients. Still early meningitis, vasculitis and hydrocephalus can lead to poor outcome as seen in our patient.

Skull base tuberculosis is difficult to diagnose early, can cause diagnostic dilemma and delay in management. This can lead to poor outcome so high index of suspicion is needed in these cases [2,3].

Conclusion

Skull base involvement in tuberculosis is rare. Early diagnosis of spheno clival tuberculoma needs high suspicion. Aggressive surgical management with antitubercular treatment can lead to better prognosis, delay in diagnosis can lead to dismal outcome as highlighted by our case.

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