

Eikenella Corrodens Skull Osteomyelitis: Case Report and Literature Review

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Abstract

Of all the case of bacterial osteomyelitis, Eikenella Corrodens is rare causative agent. We report a case of bacterial skull osteomyelitis by eikenellacorrodens in 66 y old man which has no risk factor or direct trauma apart from diabetes mellitus.

Keywords: Bacterial osteomyelitis, Eikenella Corrodens Trauma, Diabetes mellitus

Case report

66 years old male admitted 11 months ago prior presentation (19th of January 2007), known for DM, hypertension and ischemic heart disease post coronary arteries bypass graft (GABG) 6 months before admission. Presented to emergency room (ER) with history of swelling in the right parital area of the head started three weeks before admission. Gradually increase in size associated with high grade fever, chills, vomiting, blurred vision, electrical type pain radiating to involve all head areas, eyes and ears also he had unsteady gait with tendency to fall to the right side. No history of seizure or loss of consciousness.

On examination: patient was febrile 40.3 C, blood pressure was 102/61, and pulse rate was 89 per minute. GCS was 15/15. He was conscious alert to time, place and person. Higher mental functions were intact. Cranial nerves, motor system and sensory system were intact. The gait was unsteady with wide base and tendency to fall to right side.

Local exam showed swelling in right parital

area 6*6 cm red in color, no sinus or discharge from the lesion was noticed. The swelling was soft in consistency with mild tenderness and ill defined margin.

Complete blood count showed leukocytosis (WBC:13.5.e9/L) with marked neutrophil shift 95.2%, lymphocyte was 2.44%, erythrocyte sedimentation rate was 85 mm/h.

Urine and blood sent for culture and sensitivity for bacteria and fungal and the result were negative for both. plan CT head showed large bony defect involving the posterior portion of the right parietal bone associated with irregular border and extra- and intra-cranial enhanced soft tissue component abutting the brain parenchyma with no definite evidence of invasion. (Figure 1)

Patient started empirically on ceftriaxone 2 gm intravenous once daily as a case of skull osteomyelitis and taken to operating room for right post-parietal craniotomy, drainage of pus, debridement and excision of right post-parietal lesion. During the operation the parital bone showed evidence of osteomyelitis in form of cystic lesion with sequestration but dura was intact. Copious amount of thick, foul smelling, greenish pus drained, gram stain and culture showed eikenella corrodens sensitive to ceftriaxone. Thorough debridement, irrigation and perilesional-craniectomy done.

After that patient improve dramatically post IV antibiotic for two weeks then discharge on oral augmentin 625 mg orally Q8

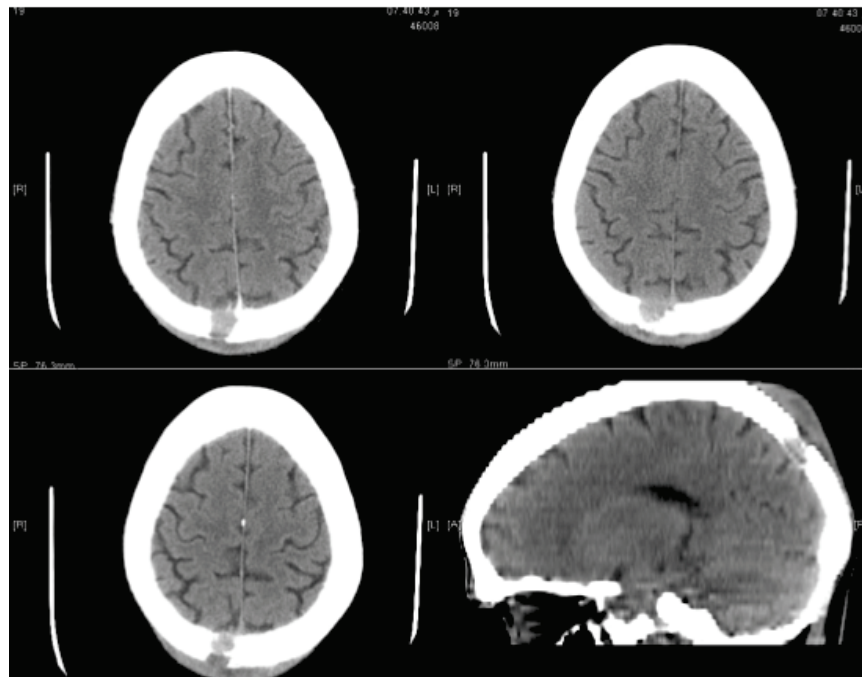
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Figure 1: Plan CT scan showed evidence of bony defect involving right parital area



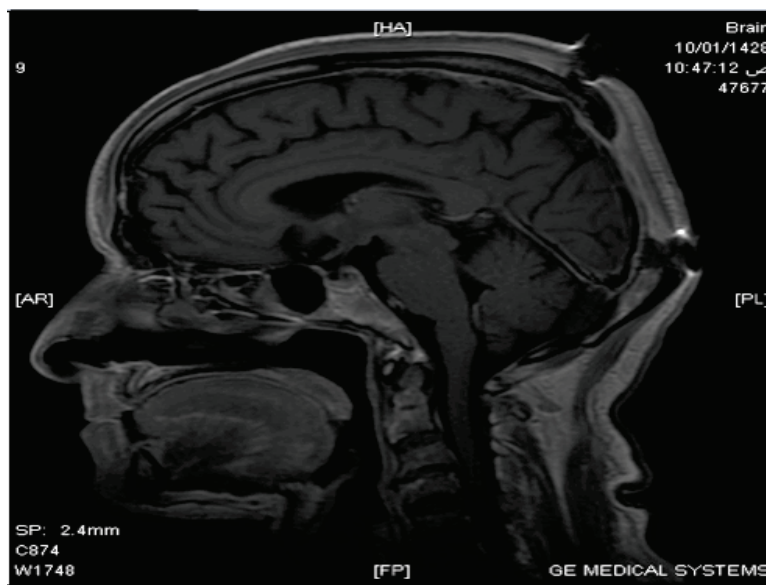
hours for four weeks with regular follow up in the clinic. MRI done after operation before discharge showed craniectomy in parietal bone with no significant underlying enhancing structure or dural breach. (Figure 2)

On 21st December 2007 patient was readmitted for cranioplasty which was done on the same day and he discharged after two days .

Literature review

E. corrodens is usually associated with dental and periodontal infection, ocularinfection and pleuropulmonary infections.[1] In recent years *E. corrodens* has been reported to cause a wide variety of infections ranging from cutaneous, subcutaneous abscesses, intestinal,

Figure 2: Sagittal brain MRI Shows craniectomy in parietal bone with no significant underlying enhancing structure or dural breach



gentourinary tract infection to osteomyelitis, cerebral abscess and cellulitis associated with the intravenous drug users.[2]

Since *E. corrodens* habits the gingival plaque, several case of head and neck infections following dental extraction and facial truma have been reported.[3] Several cases of diabetic foot osteomyelitis and wound infection caused by *E. corrodens* have been reported.[4,5] During literature review also we find several cases of *E. corrodens* vertebral osteomyelitis.[6,7,8] Although, we only have encountered one case of *E. corrodens* skull osteomyelitis of A 9-year-old child, previously healthy, presented with a minor trauma of the forehead with a minimal subgaleal hematoma. Due to the absence of symptoms, the lesion was interpreted as an arteriovenous malformation.

Seven days later, the patient was admitted with progressive enlargement of swelling without fever. Skull radiography showed nonsclerotic lytic lesions with irregular margins Computed tomography (CT) scan disclosed a significant softtissue Component with erosion of the outer and inner skull tables; no intradural extension or cortical enhancement was evident. Due to the size of the mass, a craniectomy and extradural debridement were done.[9]

While our case it is the first case in the literature of adult skull osteomyelitis secondary to *E. corrodens* without any know risk factor especially trauma, or other source of infection.

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