



The Vietnamese Time Bomb

Authors

Dr Hema Krishna Sai Kadiyala, Dr Surendran.P, Dr Niranjana Ravichandran

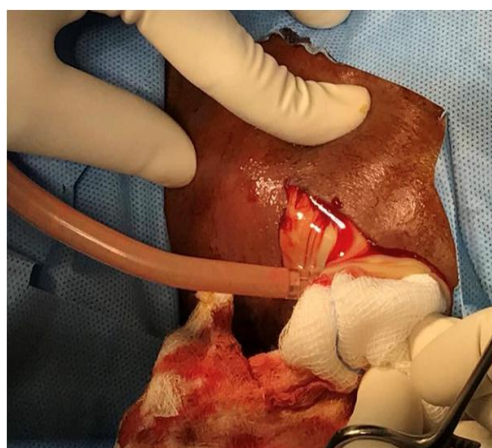
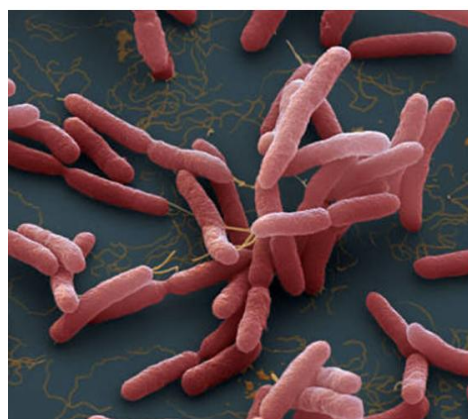
Abstract

Parotid abscess as a complication following parotitis is rare and it usually occurs due to salivary stasis, the most common organisms being isolated are Staphylococcus aureus and anaerobic bacteria. Burkholderia pseudomallei causing an isolated parotid abscess is rare in adults with very few reported cases. We present here a case of left sided parotid abscess in a 21 year old male, which on microbiologic evaluation turned out to be due to Burkholderia pseudomallei. He was successfully treated by incision and drainage of the abscess and a combination of injection ceftazidime 6 grams in three divided doses and cotrimoxazole (320mg +1600 mg) in two divided doses for initial two weeks followed by a maintenance phase with cotrimoxazole alone during the next 12 weeks.

Case Report

A 21-year-old male presented to our Emergency department with fever and persistent parotid swelling on left side with recurrent episodes of pain over the swelling from two months. On clinical examination there was fullness and swelling at the left infra auricular and pre auricular region of size 9 cm x 7 cm. It was cystic in consistency and tender on palpation with congested duct opening suggestive of parotitis on left side. There were no palpable cervical nodes and her facial nerve function was normal and symmetrical on both sides. The palpation of the stensons duct was done, no calculi could be felt. On systemic examination he was febrile with tachycardia and hypotension showing features of septic shock. An ultrasonogram was done which showed left intraparotid collection with subcutaneous extension. After taking proper consent the patient underwent Incision and Drainage. The tract was explored with blunt

instrument under anaesthesia through the parotid fascia and pus drained. The cavity was packed with medicated gauze. Pus was sent to culture and sensitivity. The pus culture identified Burkholderia pseudomallei, sensitive to ceftazidime and cotrimoxazole. The patient was started on ceftazidime six gram per day intravenous in three divided doses and cotrimoxazole (320mg+1600mg) in two divided doses for the initial two weeks as intensive phase followed by maintenance phase with cotrimoxazole for 12 weeks. The patient had resolution of symptoms with decrease in size of swelling within two weeks of initiating the medication and is on regular follow up for last one year.



Initial intensive therapy (lasting ≥14 days)

Ceftazidime	50 mg/kg up to 2 g	Every 6 hours
or		
Meropenem	25 mg/kg up to 1 g	Every 8 hours
or		
Imipenem	25 mg/kg up to 1 g	Every 6 hours
and (optional)		
Trimethoprim-sulfamethoxazole	8 + 40 mg/kg up to 320 + 1600 mg	Every 12 hours

Eradication therapy (lasting ≥3 months)

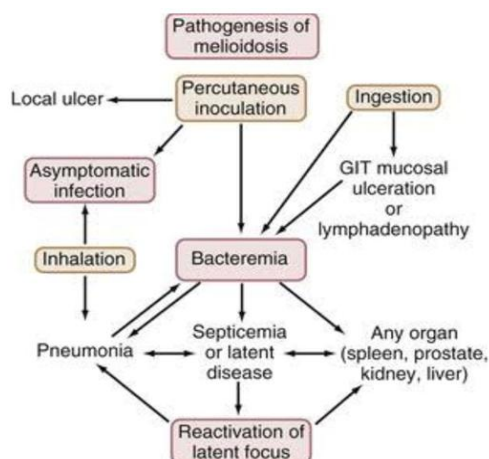
Trimethoprim-sulfamethoxazole	8 + 40 mg/kg up to 320 + 1600 mg	Every 12 hours
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Discussion

Melioidosis also called white more’s disease, is a zoonotic disease caused by Burkholderia pseudomallei which is an aerobic gram negative bacillus. This is a natural inhabitant of soil and water in tropics and subtropics mainly in South East Asia and Northern Australia. There are cases being reported in India, mainly from the western coastal region of India, Tamil Nadu and Puducherry. The disease has been increasingly reported over the last few years and there are few epidemiological studies too from the southern states of the Indian subcontinent. An early diagnosis is crucial to avoid morbidity and mortality as the disseminated disease presenting as septic shock has a fatality rate of around 20%-50%. The name "VIETNAMESE TIME BOMB" was given by American microbiologist after noting the increasing incidence of it in American troops who participated in the Vietnamese war. Western microbiologists identified this organism as a potential weapon for bioterrorism.

The disease is transmitted by inhalation, direct contact with skin lesion or contaminated water or food. The association between rainfall intensity and disease is well documented in endemic areas. Our patient had the disease during the monsoon months and had exposure to soil as she used to do vegetable farming

The disease presents as localized in 50% of the cases or could be disseminated. The most common presentation is pneumonia occurring in around



30% of the cases. In endemic areas, the parotid gland involvement is seen in around one third of paediatric patients affected with melioidosis, but it is rare in adults with very few reported cases.

The common risk factors are age more than 50, diabetes mellitus, chronic liver failure, chronic kidney disease, chronic lung disease, excessive alcohol consumption and immunosuppression. Diabetes mellitus is the single most common risk factor which is seen in around 23%-60% of the patients and this patient too had diabetes mellitus.

An early diagnosis is crucial in melioidosis to avoid morbidity and mortality as the disseminated disease presenting as septic shock has a fatality rate of around 20%-50%, however the diagnosis of melioidosis is challenging. Isolation of *Burkholderia pseudomallei* from clinical specimen culture is the gold standard for diagnosis. Serological tests like ELISA for IgG and IgM antibodies and indirect haemagglutination tests are helpful in making a provisional diagnosis in the absence of isolation of the bacteria from the specimen. Therapy includes prolonged medication to cure the disease and to prevent relapse. The antimicrobial therapy includes an initial intensive phase with parenteral medication followed by an eradication phase with oral medication. The recommended dose for deep seated tissue collection based on recommended guidelines by united states centre for disease control and prevention, 2010 is ceftazidime 50 mg/kg up to two Gram intravenously eight hourly or Meropenem 25 mg/kg upto one Gram eight hourly in combination with trimethoprim and sulfamethoxazole for minimum of two weeks which may be extended to four weeks or longer depending on severity followed by trimethoprim+sulfamethoxazole -240 + 1,200 mg (for adult 40-60 kg) and 320 +1,600 mg orally (adult > 60 kg), 12-hourly for further three months. In present case, the patient received ceftazidime six gram in divided doses with trimethoprim and sulphamethoxazole 320+1600 mg for two weeks followed by cotrimoxazole alone in the same dose for three months.

Conclusion

The possibility of melioidosis needs to be considered in the differential diagnosis of recurrent parotitis especially in diabetics not responding to conventional treatment. A high index of suspicion, culture conformation and a long term treatment regime gives excellent outcome in management of this emerging disease.

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