and promote normal growth. Vomiting and failure to thrive were the most common clinical presentation seen in both genders in our series, similar to an earlier observation by Begum, et al. [4].

To date there are approximately 100 different mutations reported in CYP 21 gene including deletions, point mutations and insertions. Severe mutations are associated with classical CAH whereas milder mutations are associated with non-classical CAH [5,6]. Marumudi, et al from New Delhi reported Intron 2 mutation as the most common mutation in patients with CAH [7]. Mathur, et al. [6] from New Delhi reported Ile173Asn followed by intron 2 splice and Gln 319 stop mutations in children with classical CAH. In our series, 8 bp deletion in exon 3 of the CYP21A2 gene was the most common (66.7%) followed by 12 g mutation in Intron 2 of the CYP21A2 gene [IVS2-13A/C>G]. As complete sequencing of CYP21A2 gene is expensive and is available only in select laboratories, knowledge of common mutations prevalent in our population helps us to make a reliable pre-, peri- and post-natal diagnosis, and also to offer genetic counseling to the affected families.

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Pediatric Melioidosis in Southern India

Melioidosis in children is increasingly detected from the coastal region of Southern India during monsoon. We present 11 cases of melioidosis, ranging from localized to disseminated, treated successfully, barring one death. It calls for awareness and upgrading laboratory facilities for better diagnosis and management of pediatric melioidosis.

Keywords: Burkholderia pseudomallei, Child, Lymphadenitis.

Melioidosis, a disease caused by the soil-dwelling bacterium Burkholderia pseudomallei, has varied clinical spectrum ranging from mild localized illness to fulminating sepsis. Southern part of India is apparently a new ‘hot spot’ in the global map of melioidosis [1,2]. Childhood infections are increasingly being recognized, and are more localized affecting immunocompetent population [3,4]. This case series highlights the occurrence and presentation of the culture-confirmed cases of melioidosis among children, diagnosed at our institute between January 2007 and June 2014.

Pediatric melioidosis accounted for 8% of 140 cases of melioidosis diagnosed during this period. The median age was 7.5 years (range 3-18 y). Fever was the commonest presentation (100%) with a median duration of 10 days (range 2-90 d). Ten children presented with acute disease (≤2 mo), while one child had fever for three months. Melioidosis was restricted to head and neck region in five children (two submandibular abscesses, two suppurative cervical lymphadenitis and one suppurative parotitis), whereas six had disseminated disease. Hepatomegaly and splenomegaly were observed in three and two cases, respectively. Two children had diabetes mellitus, both of whom presented with severe systemic illness, but recovered. One child, who presented with septic shock, encephalopathy and acute respiratory
distress syndrome (ARDS), died before blood culture report was available. All except one child presented during monsoon season (May to October). Nine children were from coastal regions, and two from around Western Ghats. All children had history of contact with soil and water while playing outdoor. Cultures (BacT/ALERT system) showed 100% susceptibility (Kirby Bauer disc diffusion method) to amoxicillin-clavulanic acid, ceftazidime, meropenem, sulphamethoxazole-trimethoprim (TMP/SMX) and doxycycline. Six children were treated with amoxicillin-clavulanic acid, alone or in combination with ceftazidime or TMP/SMX, while four were treated with ceftazidime or meropenem. Hospital stay ranged from 3 to 14 days. Ten children showed clinical improvement by the time of discharge; two completed 3 months of maintenance therapy with TMP/SMX, and eight were lost to follow-up.

Melioidosis still remains an underdiagnosed entity in India, especially in children [4,5]. Acute and localized clinical presentations involving head and neck as suppurative lymphadenitis is consistent with other reports from South East Asian countries [2,6-10]; in Australia, suppurative parotitis is more common [1]. Severe systemic melioidosis in adults or localized melioidosis in children is treated with intravenous ceftazidime for 10-14 days followed by oral therapy with TMP/SMX alone or in combination with doxycycline (only in children >8 years) for 20 weeks. Mild localized infection may be treated with oral TMP/SMX for shorter duration of 4-5 weeks. Localized melioidosis in children responds well to drainage of pus supporting better recovery with short course antibiotic therapy [2,8]. Majority of the children in our series belonged to rural and semi-urban settings, and presented with acute disease during rainy season which suggests that waterlogged soil possibly increases chance of acquiring this infection. However, the ecology of soil and environmental distribution of B. pseudomallei is yet to be studied in India.

We conclude that melioidosis should be an important differential diagnosis in suppurative lesions of head and neck, and soft tissue infections in children. Active microbiological search would enhance the accuracy of presumptive diagnosis and widen the knowledge on this emerging bacterial agent, especially in coastal areas.

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