Lactococcus garvieae: An Emerging Pathogen

Lactococcus garvieae is a major pathogen in aquafarming with an endemic peak season during the summer. It is considered a rare human pathogen with low virulence [1]. There are very few reported cases of human infection. Because of the increasing development of aquafarming, human cases of Lactococcus garvieae infection are expected to rise.

A 3½-year-old girl weighting 10 kg was admitted to us with fever of five days duration, loose stools, vomiting and refusal of feeds due to painful deglutition. She was febrile, pale and dehydrated with cheilitis, gingivitis, stomatitis, and had white plaque like lesions on the tongue and angles of the lips with right cervical lymphadenitis. There was history of recent fish intake and consumption of unpasteurized milk. After correcting the hydration status, we started intravenous amoxicillin and metronidazole. Her investigations were: hemoglobin 7.2 g/dL, platelet count 498×10⁹/L, total leukocyte count 15.6×10⁹/L, Neutrophils 61%, lymphocytes 31%, eosinophils 6%, monocyte 2%; X-ray chest was normal. Culture of the swab taken from oral lesions did not yield any growth. Lactococcus garvieae was identified in blood culture by automated microbial analyser (Vitek 2 Compact). As the organism was susceptible to amoxycillin, we continued with the same antibiotic, and patient improved remarkably.

Lactococci are facultative anaerobic, catalase negative, gram positive cocci that occur singly, in pairs or in chains [1]. Susceptibility to clindamycin can be used to differentiate between *L. lactis* and *L. garvieae* as the latter is resistant to clindamycin [2].

L. garvieae is associated with subclinical mastitis in water buffalo and in cows [3]. It is a rare pathogen with low virulence for human infection. It has been reported to be associated with infective endocarditis, bacteremia, peritonitis, osteomyelitis, and spondylo-discitis [1]. The presence of gastrointestinal disorders may facilitate infection [4]. The treatment is not standardized because the exact criteria of susceptibility test have not been established [3]. The oral lesions as seen in our patient have not been earlier reported with L. garvieae infection. Anemia, undernutrition and gastrointestinal infection could have predisposed this child to this opportunistic, low virulence infection.

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