

A rare case of streptococcus mitis infective endocarditis complicated by heart failure in a lactating mother with recurrent breast engorgement

ABSTRACT

Infective endocarditis during breastfeeding is rare. To the best of the authors' knowledge, this is the second recorded case of infective endocarditis in a lactating mother. It is known that women of child-bearing age are susceptible to infective endocarditis during pregnancy when the immune system is compromised. Nevertheless, past cases were also exposed to a systemic infection via milk infected by their infant's oral commensal. *Streptococcus mitis* (*S.Mitis*) endocarditis in pregnancy has also been reported, whereby a lady delivered via caesarean section and underwent mitral valve reconstruction and annuloplasty. *S. mitis* is considered a pioneer streptococci commensal in human oral mucosa, appearing as early as 1-3 days after delivery. As a child grows, their oral mucosa will be colonized by more viridans streptococci, including the teeth, oropharynx and nasopharynx. In a mother who breastfeeds, a crack in the nipple and breast engorgement can be predisposing factors for systemic infection stemming from an infant's oral commensal. Both cases of breastfeeding-related infective endocarditis caused by pioneer streptococcus viridans, *S.mitis* in our report and *S.salivarius*³ in the previous report, affected the left-sided valves.

Keyword: Infective endocarditis; *Streptococcus mitis*; Pioneer streptococcus; Patient education; Lactating mastitis