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Authors	O'Connor, Ciara;O'Connell, Nuala H.;Power, Lorraine;Merrigan, Anne;Tormey, Shona M.;Coffey, Calvin J.;Linnane, Barry;Dunne, Colum P.
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Panton-Valentine Leucocidin Toxin-Positive *Staphylococcus Aureus*-Mediated Neonatal Mastitis

ABSTRACT

Neonatal mastitis is an inflammatory condition of the breast frequently associated with *Staphylococcus aureus*. While Panton-Valentine leucocidin (PVL), a B-pore-forming cytotoxin, is commonly associated with enhanced virulence in community-acquired methicillin-resistant *S. aureus* isolates, this is the first report to our knowledge of neonatal mastitis caused by PVL-positive *S. aureus*.


A 20-day-old full-term female neonate presented with bilateral mastitis, complicated by bilateral abscess formation. PVL toxin-positive *S. aureus* was cultured from aspirates of both breasts.

All family members, none of whom presented with symptoms of infection, and, specifically, maternal vaginal samples proved negative for PVL-positive *S. aureus*. Successful resolution involved surgical drainage and clindamycin therapy.

While PVL toxin-positive *S. aureus* has previously been implicated in bovine and ovine mastitis, there may now be a need for vigilance with respect to human incidence. Due to PVL-mediated tissue necrosis, breast abscess formation and poor response to conventional antimicrobial therapy should, perhaps, be a cause for suspicion of PVL-bearing *S. aureus* and expediting of appropriate therapy to avoid potential for long-term consequences such as abnormal breast development.

SOURCE

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O'Connor, C.,^{1,2}
O'Connell, N.H.,^{1,2}
Power, L.,¹
Merrigan, A.,³
Tormey, S.,³
Coffey, C.,^{2,3}
Linnane, B.,^{2,4}
Dunne, C.P.²
Department of
Clinical
Microbiology,
University Hospital
Limerick¹
Centre for
Interventions in
Infection,
Inflammation and
Immunity (4i),
Graduate-Entry
Medical School,
University of
Limerick²
Department of
Surgery,
University
Hospital
Limerick³
Department
of Paediatrics,
University
Hospital
Limerick⁴