A deep neck abscess is uncommon in the newborn period. In this case, we noted a clindamycin-sensitive methicillin-resistant *Staphylococcus aureus* infection characterized as a deep neck abscess in an 8-day-old boy. He was admitted to the pediatric intensive care unit with a progressively enlarging indurated mass below the mandible. Imaging confirmed the mass as a submandibular abscess. The patient received antibiotics in addition to incision and drainage, with resolution of the abscess.

Deep neck abscesses can lead to complications such as sepsis, mediastinitis, or airway compromise if not treated appropriately and in a timely manner (1). Abscesses commonly arise as a sequela of odontogenic, rhino- genic, otogenic, or aerodigestive tract infections, and common microbacterial causes include *Staphylococcus aureus*, *Streptococcus pyogenes*, *Streptococcus viridans*, anaerobic gram-negative bacilli, and *Peptostreptococcus species* (2). These infections, however, are rare in the neonatal period, and here we describe a case of a neonatal neck abscess caused by methicillin-resistant *Staphylococcus aureus* (MRSA).

CASE DESCRIPTION

A healthy male newborn was born at 37 weeks' gestation to a 22-year-old gravida 2 para 1 mother who was induced due to preeclampsia. The birth had no noted complications, including trauma or procedures. The mother was negative for group B *Streptococcus*. The infant spent 6 days in the nursery due to physiologic jaundice, received phototherapy, and was transitioned to home without difficulty. He presented 1 day after discharge on the 8th day of life for newborn follow-up and was noted to have left lateral neck swelling under the angle of the mandible, which had started the previous night. The patient did not have fever, vomiting, or diarrhea. The mass measured 4 to 6 cm and was noted to be indurated and tender to palpation with erythema and ill-defined borders. There was no sign of trauma or fistula in the skin. No stridor, respiratory distress, or retropharyngeal or parapharyngeal fullness was noted on exam.

Hematologic workup showed a white blood cell count of 27.6 cells/μL (normal range 5–21) and a C-reactive protein of 22.6 mg/L (normal range <10). Blood and cerebrospinal fluid cultures were negative for organisms. An ultrasound demonstrated a heterogeneous mass measuring 2.0 cm with prominent lymph nodes along the left cervical chain. The patient was given broad-spectrum intravenous antibiotics. Repeat imaging with computed tomography showed a multiloculated abscess below the left mandibular angle (Figure). Incision and drainage of the abscess demonstrated purulence, and cultures were positive for clindamycin-sensitive MRSA. The patient was managed postoperatively for 8 days with culture-directed therapy and was discharged home. An immunologic workup was negative for any deficiencies.

DISCUSSION

Infection is the most common cause of neck swelling in the pediatric population, with lymphadenitis being the predominant etiology. Other potential causes of neck swelling include a variety of congenital, inflammatory, benign, and malignant lesions. In the neonatal period, the most common pediatric neck lesions are thyroglossal duct remnant and branchial cleft anomalies (3). However, in our patient, the abrupt onset, associated induration and erythema, and posterolateral location at the angle of the mandible suggested an inflammatory process, which was confirmed upon imaging to be supplicative lymphadenitis.

In a study of 445 neck masses in children, 2% were diagnosed with suppurative lymphadenitis, with MRSA being the most common pathogen. The average age for this cause was 7.3 years, with a range from 4 months to 15 years (4). A review of the literature revealed a paucity of data regarding neonatal neck infections. One study from Texas Children’s Hospital looking at children up to 60 days old from whom *S. aureus* was isolated demonstrated that two-thirds (67%) of abscesses isolated MRSA (5).

A highly prevalent location of suppurative lymphadenitis is along the anterior jugular chain, which is consistent with the location of our patient’s abscess. The lymph node involvement is usually unilateral and is a result of a pyogenic infection of

**Submandibular neck mass in a newborn**

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male infants at 7 to 12 days of age are most at risk for neo-
natal MRSA infections (10). This infection could have been
introduced from the mother handling the patient, which could
produce subclinical breaks in the patient’s skin, allowing bacteria
to colonize the wound.

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