



P13-03

Differential diagnosis of blue toes in a newborn infant

Hochmayr C.¹, Auckenthaler M.², Fink F.², Wöckinger P.¹, Streif W.³, Kiechl-Kohlendorfer U.¹, Griesmaier E.¹¹Department für Pädiatrie II (Neonatologie), Medizinische Universität Innsbruck, Innsbruck, Tirol, Österreich²Department für Kinder- und Jugendheilkunde, Bezirkskrankenhaus St. Johann in Tirol, St. Johann in Tirol, Tirol, Österreich³Department für Pädiatrie I, Medizinische Universität Innsbruck, Innsbruck, Tirol, Österreich

Einleitung: Blue toe syndrome is a well-known entity in adult patients, in which one or more toes become blue/violet due to acute ischemia. Blueish feet in a newborn are mostly a benign condition, related to acrocyanosis caused by peripheral vasoconstriction and increased tissue oxygen extraction. A rare condition in neonates is acral necrosis, most likely caused by thromboembolic events.

Patienten und Methoden: We report about an otherwise healthy term neonate with blue toes, diagnosed as acral gangrenous necrosis.

Ergebnisse: The girl was born by secondary Cesarean section at term (37 weeks gestational age, birth weight 2388 grams) to a 26-years old healthy mother. Apgar scores were 9-10-10; umbilical cord arterial pH was 7.38. After uneventful transition, the otherwise healthy neonate presented with acral skin lesions of the right foot with partially livid character on the tiptoes of toes I, II, and IV at 12 hours after birth. In the following 12 hours, these lesions evolved into acral necrosis (toe I/II). Diagnostic work-up ruled out history of mechanical or physical damage. Further evaluation revealed no familial predisposition to thromboembolic events or autoimmune diseases causing blistering of the skin. Vascular ultrasound did not show any signs of thromboembolism. Neonatal coagulation tests and infection parameters were normal. Maternal infection history revealed a SARS-CoV-2 infection in mid-pregnancy presenting with mild COVID-19 symptoms. Serological testing of neonatal serum collected at day 6 of life showed anti-SARS-CoV-2 IgG antibody (S1RBD epitope) titers of 766 U/mL. Neonatal RT-PCR for SARS-CoV-2 using a nasopharyngeal swab was negative.

Schlussfolgerungen/Diskussion: Thromboembolic events are a rare condition in newborn infants. Risk factors include maternal diabetes or autoimmune disease leading to hypercoagulability. Pathologic processes in the placenta are a possible etiology of thrombotic emboli and were associated to maternal infections. Neonatal vascular complications have been reported previously following intrauterine SARS-CoV-2 exposure and might be caused by a hypercoagulable state in the fetus. In our case a thromboembolic cause, causing acral gangrenous necrosis of the tiptoes seems to be most likely. A relation to prepartal maternal SARS-CoV-2 infection is possible.