



PAEDIATRIC DERMATOLOGY

RUMPEL-LEEDE PHENOMENON – A DECEPTIVELY ALARMING RASH IN OTHERWISE HEALTHY INFANTS

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Background: The Rumpel-Leede phenomenon is characterised by acute dermal capillary rupture caused by tourniquet-like forces resulting in distal petechial and purpura on release of pressure. This eponymous sign was first described in 1909 by Theodor Rumpel, then in 1911 by Carl Stockbridge Leede. It is associated with conditions that predispose to capillary fragility, like scarlet fever, diabetic microangiopathy, thrombocytopenia, and after blood pressure cuff inflation. In children, it has been associated with hematological malignancies like leukemia, bleeding diatheses, liver disease, and infantile scurvy. Most recently, it has been reported to be brought on by tourniquet-like forces of baby carriers in healthy infants.

Observation: We present a case series of 3 healthy infants with self-limiting Rumpel-Leede phenomenon of the lower extremities. Two infants developed this phenomenon after being carried in “legs-out, trunk against parent’s chest” baby carriers with their lower limbs circumferentially constricted. One infant developed a similar rash after being held down circumferentially around both upper thigh and legs for vaccinations. Blood investigations did not reveal any bleeding diatheses and all remained well with spontaneous resolution of the rash.

Key Message: The acute onset of a petechial and purpuric rash in infants can be alarming and may result in emergency room consults. Underlying bleeding diatheses or serious conditions such as meningococcemia should be excluded. These 3 cases demonstrate the association between excessively tight baby carriers and the use of constrictive grips to immobilize infants during vaccinations with the development of this self-limiting condition. Healthcare professionals should be cognizant of this relatively benign condition as a differential diagnosis to avoid excessive investigations or hospital admissions. Caregivers and healthcare workers can be advised to avoid prolonged restrictive mechanical forces when carrying their infants in carriers or handling them.

