

Harlequin phenomenon at birth: and she was born with a white stocking...

Susana Franco Santos,¹ Maria Rosário Cancellla de Abreu²

¹Hospital Dona Estefânia, Centro Hospitalar Lisboa Central, Lisboa, Portugal
²Hospital de Cascais, Dr José de Almeida, Cascais, Portugal

Correspondence to
 Dr Susana Franco Santos, susana.franco.santos85@gmail.com

Accepted 6 July 2015

DESCRIPTION

We describe the case of a newborn female baby, born at term after an uncomplicated pregnancy and a caesarean section. She had a cephalic presentation and weighed 3820 g at birth. She cried immediately after birth. After 8 min of life, intense pallor appeared from the knee to the toes of the right foot (figure 1). The episode lasted about 11 min and resolved spontaneously in a cephalocaudal direction (figure 2). This Harlequin phenomenon, which is transient, is related to a benign skin disorder and can occur in approximately 10% of healthy newborns.^{1–3} The phenomenon presents as a well demarcated colour change, with one half of the body manifesting erythema and the other half manifesting pallor. It usually occurs between the second and fifth days of life, but there are cases in the literature mentioning occurrence up to 3 weeks of age.^{1–3} It has an average duration between 30 s and 30 min and occurrence can vary from 1 to 12 episodes over a period of 24 h.^{1–3} Although the exact cause of this phenomenon is unknown, it appears to be related to vasomotor instability caused by hypothalamic immaturity, fre-



Figure 2 Spontaneous resolution of Harlequin phenomenon in a cephalocaudal direction.

quent at this age. The gravity effect seems to trigger most cases. When newborns are placed in the lateral decubitus position, the plethoric half seems to be side-dependent and the pale half arises from the contralateral side. With crying, this change may disappear.³



Figure 1 Pallor in the inferior 1/3 of the right lower limb after birth—Harlequin phenomenon.

Learning points

- ▶ Harlequin phenomenon occurs in healthy newborns.^{1–3}
- ▶ This benign, but ostentatious and frightening condition, should not be confused with Harlequin fetus, a severe and rare form of congenital ichthyosis.³
- ▶ The recognition of this skin disorder is important so as to reassure parents about the benign nature of the condition, and to avoid additional diagnostic procedures and unnecessary treatments.¹

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Salgado M. O fenómeno (H) Arlequim *Saúde Infantil* 2003;25:35–42.
- 2 Sujithra V, Senthilkumar S. Visual diagnosis: newborn who has unilateral color change. *Pediatr Rev* 2013;34:e25–6.
- 3 Tang J, Bergman J, Lam JM. Harlequin colour change: unilateral erythema in a newborn. *CMAJ* 2010;182:E801.



To cite: Santos SF, Cancellla de Abreu MR. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2015-210549

Copyright 2015 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow