

Letter to Editor

Harlequin color change in the delivery room

Doğum odasında palyaço renk değişikliği

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Dear Editor,

Harlequin discoloration (HCC) is a sudden color change of the skin involving the sharply circumscribed half of the body. Following the first report by Neligan and Strang in 1952, it has been described in a relatively large number of clinical reports involving infants, children and adult patients (1,2). In neonates, it is generally reported between the second and fifth days up to three weeks after birth. (3). The color change stays for 30 seconds to 20 minutes and then fades away on its own. The darkness or intensity of the color formed in the skin varies between infants depending on the gravity and the baby's lying position (4).

Here, we aim to describe an HCC case in the delivery room, which is seen immediately after birth. The patient was otherwise healthy who was born by cesarean section at 39 weeks of gestation, with a birth weight of 3500 g. He cried as soon as she was born and was placed under a radiant heater for the initial steps. Just after suctioning the secretions with a suction tube inserted into the pharynx, he developed HCC (Figure 1). In a matter of minutes, this discoloration cleared up on its own. Apgar scores were noted as 8/9/9. Antenatal history was unremarkable and postnatal follow-up went uneventful. Echocardiography revealed normal findings. It was assumed that the color change developed as a result of vagal stimulation (suctioning) and/or rapid temperature changes following birth (i.e, in utero

body temperature to room temperature, than to radiant heater.)



Figure 1. Well-circumscribed color change (HCC) on one side of the body in a newborn infant

For the most part, HCC represents a benign and rapidly self-resolving phenomenon that does not require treatment. Although associations, such as prematurity, low birth weight, hypoxia, anesthetics, systemic use of prostaglandin E1, intracranial injury and meningitis have been reported in the literature, this condition is also frequently seen in otherwise healthy newborns (1-3). Some drugs (especially anesthetics and prostaglandin E) are thought to increase HCC frequency thro-

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ugh their effects on capillary tone in the peripheral vascular bed; this effect is already immediately reversible on discontinuation of the drug. Only in rare cases, HCC can serve as a clue to severe central nervous system disorders (e.g., hypothalamic, brainstem, or sympathetic nervous system lesions). However, in such cases, HCC always represents an epiphenomenon of the disease, never the only sign of the underlying disorder.

Although the exact mechanism underlying HCC is not already known in detail, there is strong evidence for the involvement of the autonomic nervous system in the control of peripheral capillary bed tone. The hypothesized pathogenesis includes the transient imbalance in the tone of cutaneous blood vessels secondary to autonomic irregularities due to hypothalamic immaturity in newborns. Erythematous pale skin areas arise from irregular regional capillary dilatation and vasoconstriction, respectively (2).

In conclusion, HCC is a benign, idiopathic phenomenon that resolves rapidly without need for treatment. Diagnosis is clinical and to prevent extra work-up, raising awareness among pediatricians is of critical importance. Although it is quite common, to our knowledge, this is the youngest reported case that has presented immediately after birth.

Patient Consent Form / Hasta Onam Formu

The parents' of this patient consent was obtained for this study.

Conflict of Interest / Çıkar Çatışması

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