

AWARD FOR THE HIGHER SCORE DURING THE ABSTRACT REVISION PROCESS FOR CASE REPORTS, 2nd PLACE:**30. HARLEQUIN COLOR CHANGE IN A NEONATE POSITIVE TO COVID-19: CASE REPORT**

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 <https://www.youtube.com/watch?v=0JIMP5Fyl7s&t=12453s>

INTRODUCTION: Harlequin color change is a benign, idiopathic, self-limiting disorder characterized by an appearance of skin divided into two distinctly colored areas. Its etiology is unknown but thought to be caused by immaturity of hypothalamic regulation of peripheral vascular tone. COVID-19 infection in neonates is infrequent and rarely symptomatic, with only a few cases described in the literature. In isolation, both conditions have low incidence. This is the first case reported in the world literature of harlequin color change in a newborn who tested positive for COVID-19. There isn't a single publication that links harlequin color change to COVID-19, yet. **CASE:** Newborn of a 34-year old mother. Who at 3 hours of life presented progressive respiratory distress with whimpering and cyanosis. At 20 hours presented a sudden color change in the right hemibody with unilateral hyperemia and contralateral pallor, simultaneous with a demarcated line separating the left and right sides of the body, involving the trunk, extremities and face, this remained for 10 minutes and then began to fade on its own until it disappeared completely. There were no changes in vital parameters associated with this phenomenon. Only one episode was reported. The transient character and the strict unilateral distribution of the manifestations did not confirm any etiology other than Harlequin phenomenon. Subsequently the patient evolved to respiratory deterioration, multiorgan failure (SOFA: 21), died at 22 days of life due to respiratory arrest. **CONCLUSION:** This is the first ever documented case in worldwide literature of harlequin color change in a neonate positive to COVID-19. Given the low incidence of both entities in isolation and the fact that they were discovered in the same patient, we suggest a strong possibility of SARS-CoV-2 to be the source of the harlequin phenomena in this case and should be considered as an indicator of severe COVID in newborns, but further studies that expand the selection of patients with this condition are needed. There is no literature linking the harlequin phenomenon with COVID-19.

Figure. Harlequin Phenomenon in a Newborn. Regional Skin Discoloration with Sharp Edges, Affecting the Face and Right and Left Hemibody of the Newborn. Regional Skin Discoloration with Sharp Edges, Affecting the Face and Right and Left Hemibody of the Newborn. Self-limited.



Key words: COVID-19; Newborn; Case Reports; Harlequin syndrome; Pediatrics.