Michelin Tire Baby (MTB) Syndrome: a case report

Chiara **Cauzzo** [1,*], Riccardo **Fiorentino** [1], Valentina **Chiavaroli** [2,3], Chiara **Palka** [4], Altea **Petrucci** [2], Eleonora **Coclite** [2], Marianna **Sebastiani** [2], Teresa **Topazio** [2], Francesco **Chiarelli** [1], Susanna **Di Valerio** [2]

[1] G. d'Annunzio University of Chieti-Pescara, Chieti-Pescara, Italy.
[2] Neonatal Intensive Care Unit, Pescara Public Hospital, Pescara, Italy.
[3] Liggins Institute, The University of Auckland, Auckland, New Zealand.
[4] Medical Genetics Unit, SS. Annunziata Hospital, Ferrara, Italy.

DOI: 10.36129/jog.2022.S132

Objective. Michelin Tire Baby syndrome (MTBS) is a rare and heterogeneous disorder characterized by multiple and redundant skin folds, which can be isolated or associated with other phenotypic anomalies. We report the case of a newborn who immediately captured our attention because of his appearance.

Materials and Methods. A full-term male was born in our department with a birth weight of 3.590 kg (0.57 SDS). Clinical examination revealed multiple, asymmetric and deep skin folds involving forearms, legs and lower eyelids (right > left) (**Figure 1**). These folds did not seem to cause any physical discomfort to the newborn. In addition, hypertrichosis, micrognathia, low-set ears and a thin, down-turned border of the upper lip were observed (**Figure 1**). Cardio-respiratory, abdominal and neurological examinations were unremarkable. There was no family history of similar phenotypic anomalies.

Results. Considering such clinical findings, an array-CGH was performed and it did not show significant pathogenic gain or loss. The following genetic counseling clinically diagnosed MTBS, in relation to the typical cutaneous involvement, and concluded that, in the absence of other clinical signs, evolution is generally benign and skin folds tend to disappear over time. However, the baby's DNA was sent for further targeted genetic analysis, still in progress.

Conclusions. This clinical case underlines the importance of neonatal physical examination to ensure a timely diagnostic and therapeutic approach. Our patient presented multiple skin folds and facial dysmorphism but a normal systemic and neurological examination. However, since MTBS may be associated with later neurological involvement, a regular follow-up is recommended.

Figure 1.