

## LOBULAR CAPILLARY HEMANGIOMA IN A 3 MONTH OLD BABY: EARLY OR CONGENITAL?

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**Keywords** Pyogenic granuloma, child.

**Abbreviations** **IH** = infantile hemangioma; **PG** = pyogenic granuloma.

**Case report.** A 7-month-old girl was examined for a red tumor in the left temporal region. The mother reported that from her birth there was a 1 mm purple spot in the same location and she gave



Fig. 1

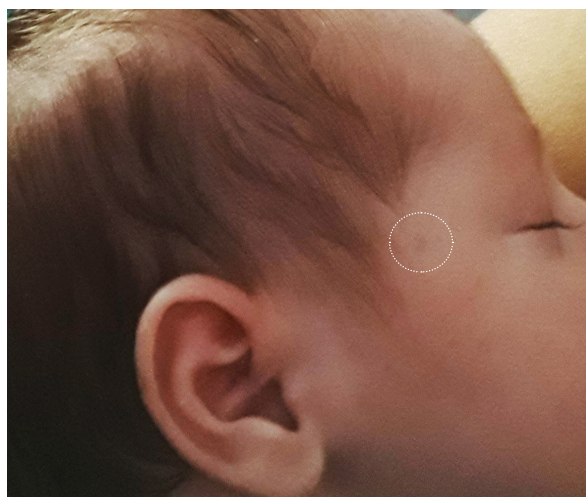


Fig. 2

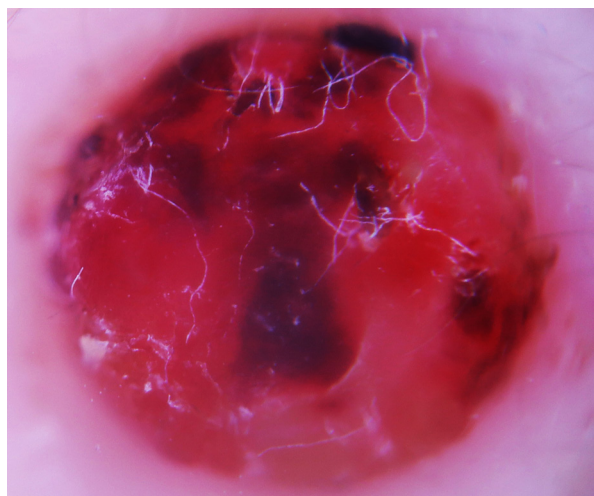


Fig. 3

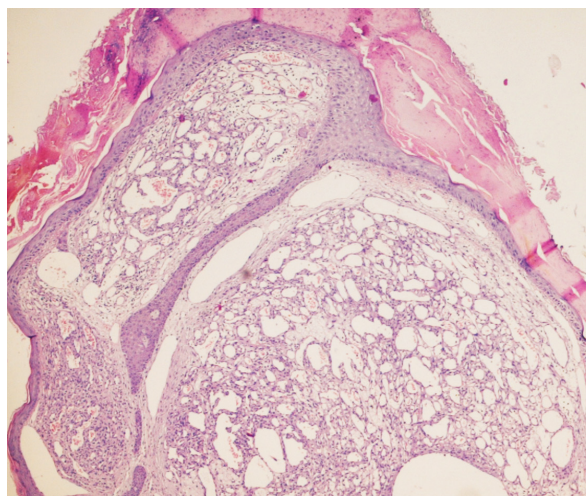


Fig. 4

Fig. 1, 2, 3, 4: Vascular tumor (Fig. 1) preceded at birth by a purplish spot (Fig. 2, circled). Dermoscopy confirms the presence of blood crusts (Fig. 3). Histological examination shows thinned epidermis that deepens dividing the neoformation into lobules (Fig. 4).

us an image of it (Fig. 2). In the third month of life, a red, rapidly growing dot formed on the spot. On the advice of her pediatrician, the mother applied 4% topical propranolol to the red dot twice a day. The tumor, however, grew further and bled profusely a dozen times. However, it had not grown any more for two weeks. Dermatological examination showed a 6 mm tumor with a 4 mm implant base; it was red and non-lobulated, with some blood crusts of about 1 mm (Fig. 1). Dermoscopic examination confirmed the absence of lobularity and the presence of blood crusts (Fig. 3). We remained undecided between the diagnosis of infantile hemangioma (IH) and that of early or even congenital pyogenic granuloma (PG). Repeated bleeding led us to remove the tumor with a curette and to continue therapy with 4% topical propranolol after removal. Histological examination showed a thinned epidermis that covered a neoformation of small vessels with a prominent endothelium immersed in loose connective tissue in the absence of inflammatory infiltrate; the epidermis insinuated itself into the neoformation dividing it into lobules of different sizes (Fig. 4). The histological examination together with the clinical findings led us to the final diagnosis of lobular capillary hemangioma.

**Discussion.** The differential diagnosis between infantile hemangioma and pyogenic granuloma is usually easy, especially due to the different time of onset. However, when PG arises in the first months of life or is even congenital (2), the diagnosis, which is important from a prognostic and therapeutic point of view, can present some difficulties. The immunohistochemical criterion of the positivity of GLUT-1 is considered an important discriminating criterion because PG is negative unlike IH, which is positive. However, this criterion, which is very useful for scientific studies, is less useful in clinical practice, because to use it you have to do a biopsy or removal, practices that are not usually performed in IH; and when removal is performed, it means that the physician has already clinically decided that it is PG and in this case the negativity of GLUT-1 only serves to confirm the clinical diagnosis of PG. Therefore the decision on the therapeutic behavior to be adopted in front of a vascular tumor remains essentially clinical.

In some borderline cases, such as the current one, the most important clinical criteria are the implant basis, ulceration and bleeding. PG is usually pedunculated while IH is sessile, at least initially: only rarely, when IH is very large and is located in areas of loose skin, it can become pedunculated with time due to gravity. The most important clinical criterion (1) remains ulceration with consequent bleeding: IH rarely ulcerates, especially in the diaper region, and when ulcerating, bleeding is almost never massive. On the other hand, ulceration, being linked to its rapid growth, is the rule in PG unless it is localized in areas of thick epidermis such as in the palmar region; and the bleeding resulting from ulceration is usually copious, alarming the parents and prompting the doctor to surgically intervene.

#### Conflicts of interest

The Author declares that he has no conflicts of interest.

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