



IMAGES IN PAEDIATRICS

Phleboliths as a radiological marker of venous malformation

Flebolitos como marcador radiológico de malformación venosa

Israel Pérez-López*, Marta Cebolla-Verdugo, Ricardo Ruiz-Villaverde

Unidad de Gestión Clínica de Dermatología Médico-Quirúrgica y Venereología, Hospital Universitario San Cecilio, Granada, Spain

We present the case of a boy aged 9 years with no history of interest. He presented with a blotch of purple skin discoloration in the right arm that he had from birth and had grown since. The area had become tender in the past month. The salient findings of the examination were the presence of a rubbery, tortuous purplish lesion extending from the first digit of the right hand to the periaxillary region, spanning the ventral surface of the arm and forearm (Fig. 1). In the antecubital region, where the lesion was largest, there were several firm nodules tender on palpation. Since there was a delay for the ultrasound, a radiograph was performed that revealed several calcifications corresponding to the painful spots in the patient's arm (Fig. 2). The ultrasound findings were consistent with a low-flow lesion. Laboratory tests evinced elevation of D dimer. The patient received a diagnosis of venous malformation with phleboliths and started treatment with acetylsalicylic acid at a dose of 50 mg/day, which was discontinued one month later, once the pain resolved.

Venous malformations are low-flow vascular malformations associated with phleboliths due to the stagnation of blood flow and localized thrombotic changes.^{1,2} Phleboliths result from the dystrophic calcification of clots. Their presence on imaging is a key finding in the differential diagnosis with other vascular and nonvascular conditions.^{1,3} Furthermore, their easy detection with a quick and noninvasive test,



Figure 1 Venous malformation extending from the first digit of the right hand to the periaxillary region, spanning the ventral surface of the arm and forearm.

* Corresponding author.

E-mail address: ipl.elmadrono@hotmail.com (I. Pérez-López).



Figure 2 Plain radiograph. Visualization of calcifications corresponding to phleboliths.

a plain radiograph, allows early diagnosis, thus contributing to better outcomes.^{1,2}

References

1. Redondo P. Malformaciones vasculares (I). Concepto, clasificación, fisiopatogenia y manifestaciones clínicas. *Actas Dermosifiliogr.* 2007;98:141–58.
2. Flors L, Hagspiel KD, Park AW, Norton PT, Leiva-Salinas C. Soft-tissue vascular malformations and tumors. Part 2: low-flow lesions. *Radiologia.* 2019;61:124–33.
3. Lee BB, Baumgartner I, Berlien HP, Bianchini G, Burrows P, Do YS, et al. Diagnosis and treatment of venous malformations. Consensus Document of the International Union of Phlebology. *Int Angiol.* 2015;34:97–149.