PORTUGUESE JOURNAL OF PEDIATRICS

PERMANYER

Check for updates

Pachydermodactyly

Paquidermodactilia

Ana C. Fernandes[1a], Cristina Amaro[2b], Luís Gargaté[3c], and João Maia-Silva[2d]*

[1]Serviço de Pediatria, Hospital de Santarém, Santarém; [2]Centro de Dermatologia, Hospital CUF Descobertas, Lisbon; [3]Serviço de Imagiologia, Hospital CUF Descobertas, Lisbon. Portugal

ORCID: [a]0000-0001-7086-5198; [b]0000-0002-8867-9649; [c]0000-0003-2050-679X; [d]0000-0002-2326-3765

A 14-year-old boy with a history of atopy went to the dermatologist with a history of progressive painless swelling of the fingers on both hands in the last two years. Manifestations of systemic or mental disorders were excluded. Examination revealed a symmetrical pattern of fusiform thickening of the proximal interphalangeal joints and dry skin around interdigital areas of the hands (Fig. 1). Imaging showed increased fibrosis without signs of synovitis or collections (Fig. 2 and 3). The patient was diagnosed of pachydermodactyly. Hydration of the hands was recommended and a wait-and-see approach was decided on. Five months later the skin was hydrated and a slight regression was noticed.

Pachydermodactyly was first described in 1973 by Bazex, et al. and named by Verbov in 1975: pachy – thick, dermos – skin, dactylos – fingers[1].

It is a rare and benign form of acquired superficial digital fibromatosis, characterized by asymptomatic, symmetrical, periarticular soft tissue swelling of the proximal interphalangeal joints. It predominantly affects adolescent males[1-4].

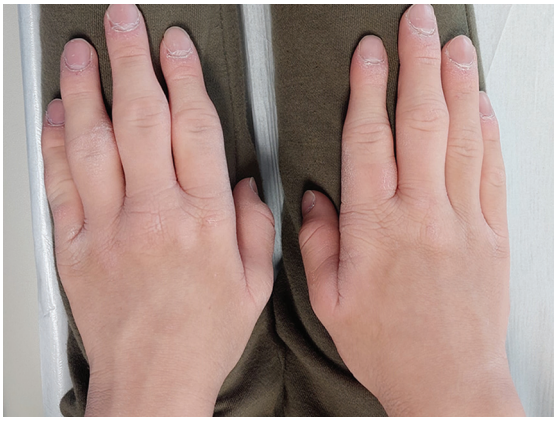

Figure 1. Fusiform swelling affecting the joints of the second through fourth fingers of both hands. Dry skin can be observed between the first, second and third fingers of the right hand and the third, fourth and fifth fingers of the left hand.

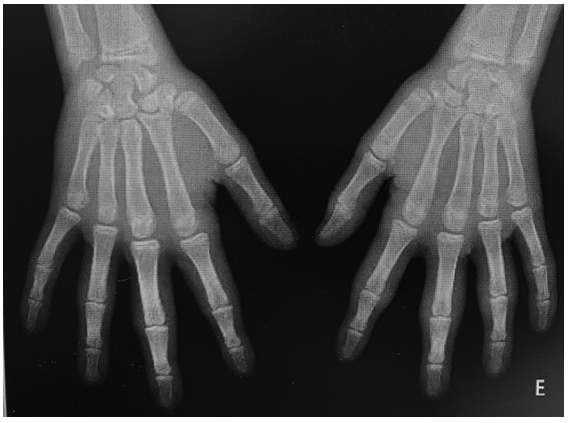

Figure 2. Radiography shows soft tissue swelling without structural involvement of the interphalangeal joints.

***Correspondence:**
Ana C. Fernandes
E-mail: acf_anacatarina@hotmail.com

Received: 29-12-2021
Accepted: 12-06-2023
https://pjp.spp.pt

Available online: 01-10-2023
Port J Pediatr. 2023;54(4):286-287
DOI: 10.24875/PJP.M23000054

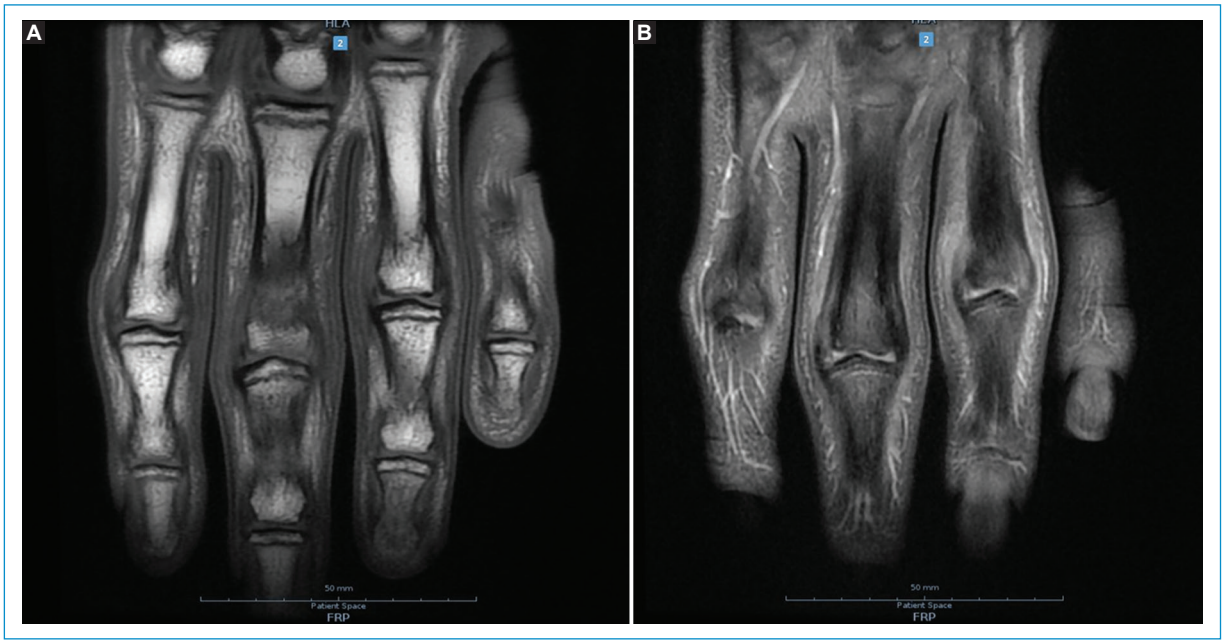

Figure 3. Magnetic resonance imaging (MRI) of the hands. On **A** the T1-weighted image shows a dark colored thickening around the proximal interphalangeal joints. On **B** the Proton Density image shows a gray sign in these thickened areas. This MRI confirms the increased fibrosis around the joints without signs of edema, synovitis or collections.

The etiology is unknown, but repetitive local trauma or compulsive habits of interlacing or rubbing the fingers may contribute[2]. Pruritus is a precipitating factor[3]. It has been reported in patients with anxiety and obsessive-compulsive disorders[2].

Diagnosis is essentially clinical. It must be differentiated from inflammatory arthritis (associated with joint pain, limitation of joint movement and morning stiffness); knuckle pads (that affect the dorsal rather than lateral surfaces of the fingers); and pachydermoperiostosis (associated with digital clubbing)[3].

Laboratory tests are usually unnecessary[3]. Imaging typically reveals soft tissue swelling without structural involvement of the interphalangeal joints[2].

Treatment is needless apart from avoidance of mechanical stimulation[3]. Intralesional glucocorticoids and surgery could be used in specific cases[4]. When associated with mental disorders, psychiatric referral must be considered[2].

Recognition of this condition and a correct differential diagnosis is important in order to avoid invasive exams and anti-inflammatory or immunosuppressive treatments.

Funding

None.

Conflicts of interest

None.

Ethical disclosures

Protection of human and animal subjects. The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki).

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

Use of artificial intelligence for generating text. The authors declare that they have not used any type of generative artificial intelligence for the writing of this manuscript, nor for the creation of images, graphics, tables, or their corresponding captions.

References

1. Zbigniew Zuber, Grzegorz Dyduch, Andrzej Jaworek, Dorota Turowska-Heydel, Małgorzata Sobczyk, Marta Banach-Górnicka, et al. Pachydermodactyly – a report of two cases. Reumatologia 2016; 54, 3: 136–140. DOI: 10.5114/reum.2016.61215
2. Diogo Matos, João Alves, Hugo Barreiros, Ricardo Coelho, Constança Furtado, Elvira Bártolo. Paquidermodactilia; Revista da SPDV 72(3) 2014.
3. Alexander K.C. Leung, Joseph M. Lam. Pachydermodactyly, J Pediatr 2021;236:316-7. DOI: https://doi.org/10.1016/j.jpeds.2021.05.049
4. Agudo-Mena JL, Buedo-Rubio MI, García-Atienza EM, Escario-Travesedo E. Paquidermodactilia: la gran simuladora. Reumatol Clin. 2019;15:e156–7. DOI: 10.1016/j.reumae.2017.07.013