

## Pachydermodactyl in a Patient With Generalized Anxiety Disorder and Tics<sup>☆</sup>



### Paquidermodactilia en un paciente con trastorno de ansiedad generalizada asociado a tics

To the Editor:

Pachydermodactyl is a rare, benign form of acquired digital fibromatosis that mainly affects male adolescents without a family history.<sup>1</sup> It is characterized by asymptomatic bilateral symmetric swelling of the lateral aspects of the proximal interphalangeal (PIP) joints of the second, third, fourth, and occasionally fifth fingers.<sup>1,2</sup> Although diagnosis is essentially clinical, skin biopsy shows compact orthokeratotic hyperkeratosis, increased numbers of collagen fibers and fibroblasts, and no inflammatory changes.<sup>1</sup> Blood and imaging tests are normal.<sup>3</sup>

We report the case of a 19-year-old man with no past personal or family history of interest who presented with asymptomatic swelling of the PIP joints. The swelling had appeared 2 to 3 years earlier and had initially affected the lateral surfaces of the joints of the fifth finger of the left hand. Similar changes gradually appeared on the PIP joints of the second, third, fourth, and fifth fingers of both hands (Fig. 1). During the interview, the patient reported that he often interlocked the fingers of his hands. The physical examination revealed multiple tics involving the face, the trunk, and both arms. The blood results were normal and tests for antinuclear antibodies and rheumatoid factor were negative. Radiography of both hands and nuclear magnetic resonance imaging showed thickening of the soft tissues



**Figure 1** Bilateral symmetric swelling of the lateral surface of the proximal interphalangeal joints of the second, third, fourth, and fifth fingers of both hands.

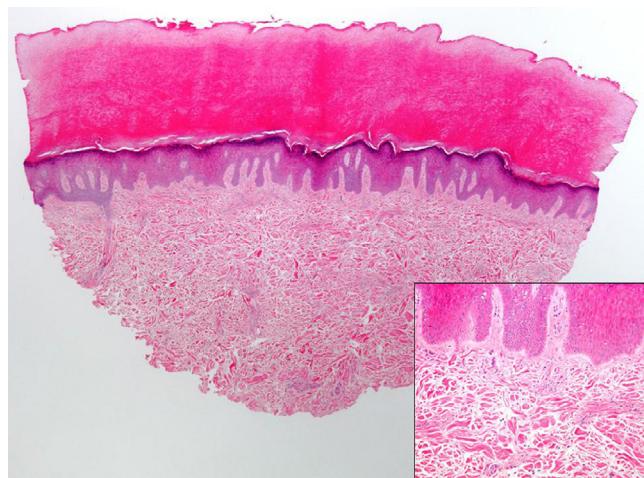
around the PIP joints on the second through fifth fingers of

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both hands, with no evidence of bone or joint abnormalities. The only abnormal finding in the bone scan was dorsolumbar scoliosis, with asymmetry in the right coxofemoral joint in relation to the scoliosis. Skin biopsy showed nonspecific lesions that nonetheless were compatible with pachydermodactyl (Fig. 2). We requested psychiatric evaluation and the patient was diagnosed with generalized anxiety disorder associated with tics. Anxiety disorder group therapy at the psychiatry department was recommended. The patient's skin lesions have remained stable to date.

The etiology of pachydermodactyl is unknown, although several authors have suggested that the disorder could be caused by repetitive minor trauma involving the repeated rubbing of fingers during continuous interlocking movements.<sup>2,4</sup> This would explain why pachydermodactyl does not affect thumbs and involves fifth fingers less frequently.<sup>3</sup> We saw our patient repeatedly interlocking his fingers during consultation and his mother confirmed that he had been doing this for years. Minor traumas of this nature have been associated with activities such as climbing,<sup>1</sup> occupational exposure (poultry processing),<sup>5</sup> and underlying psychiatric disorders. There have been reports of pachydermodactyl associated with serious psychiatric disorders, such as obsessive-compulsive disorder, related disorders such as Asperger syndrome or tic disorders, and behavior disorders, such as anxiety disorders.<sup>2,3,6</sup> Our patient was diagnosed with generalized anxiety disorder associated with tics. He did not fulfil the diagnostic criteria for obsessive-compulsive disorder or Asperger syndrome.

Pachydermodactyl is probably more common than believed and is likely to be underdiagnosed because it is asymptomatic and does not interfere with joint movement. Effective medical interventions do not exist for pachydermodactyl, but triamcinolone hexacetonide injections<sup>7</sup> and surgical resection of subcutaneous fibrotic tissue have produced good cosmetic results in some cases.<sup>1,3</sup>



**Figure 2** Histological examination showed a thickened dermis with thickened collagen bundles and increased numbers of fibroblasts, without inflammation. The epidermis showed orthokeratotic hyperkeratosis (hematoxylin-eosin, original magnification  $\times 5$ ). The inset on the right shows the collagen bundles and fibroblasts at higher magnification (hematoxylin-eosin original magnification  $\times 20$ ).

Rapid clinical diagnosis is important as it will reassure patients and avoid unnecessary tests and studies and inappropriate treatment.

While the association between pachydermodactyly and psychiatric morbidity is uncommon, given its importance, we believe that all patients diagnosed with pachydermodactyly should be evaluated by a psychiatrist, and particularly those who repeatedly interlock or rub their hands, causing finger friction. These patients would benefit from adequate psychological and/or psychiatric treatment, and partial remission of pachydermodactyly lesions has been reported following the elimination of the causes of repetitive minor trauma.

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## Eosinophilic Fasciitis: An Uncommon Cause of Edema<sup>☆</sup>

### Fascitis eosinofílica: causa infrecuente de edemas

The most common causes of generalized interstitial edema are heart failure, chronic kidney disease, and diseases of the liver. Edema, mainly affecting the extremities, is also the initial presenting symptom of scleroderma and other sclerodermiform syndromes. This type of edema is caused by fibrosis of the dermis and in its early stages can be suggestive of other pathologies.<sup>1</sup>

We describe a patient with a history of mitral valve disease who, while awaiting valve surgery, was admitted for edema of the extremities of several months' duration and was diagnosed with eosinophilic fasciitis (EF).

The patient was a 57-year-old man who presented with edema of 3 months' duration that initially appeared on the lower limbs and subsequently developed on the hands and forearms. His past medical history included diabetes mellitus type 2 and hypercholesterolemia, and he had been diagnosed 6 years earlier with valvular heart disease (mitral valve prolapse) with severe mitral regurgitation. No abnormalities in left ventricular ejection fraction (LVEF) had been observed in cardiological examinations. The patient was admitted based on the suspicion that the edema had been triggered by a first episode of heart failure. He reported no dyspnea, orthopnea, or other related symptoms. Examination revealed a previously identified midsystolic murmur

at the apex and hepatomegaly of 2 cm. An increase in the diameter of the legs and forearms was also observed, with induration and dimpling of the skin in these areas (Fig. 1), as well as discrete erythema of the legs (Fig. 2). Blood tests showed eosinophilia, a slight elevation in the erythrocyte sedimentation rate (ESR), and hypergammaglobulinemia. All other parameters analyzed were normal. The previous diagnosis of mitral valve prolapse with severe mitral regurgitation was confirmed by transesophageal echocardiography. Left and right heart catheterization showed that both LVEF and pulmonary circuit pressure were normal. Given the contradictory clinical signs and the conflicting results of invasive cardiac tests, the patient was referred to the dermatology department. Given the suspicion of sclerodermiform



**Figure 1** Edema of the right arm; note the dimpled appearance of the skin of the inner arm and the increased diameter of the forearm.

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