Other conditions should also be considered in the differential diagnosis, including joint tophi, xanthomatous deposits, and paraneoplastic acrodactyly.[11]

The histopathological findings of pachydermodactyly include a thickened dermis, with an increase in the number of collagen fibers accompanied by a discreet increase in the number of fibroblasts. There is also a slight increase in the quantity of mucin, with no significant inflammatory infiltrate. The overlying epidermis often shows hyperkeratosis with compact orthokeratosis.

Local infiltration of triamcinolone hexacetonide and resection of the fibrotic subcutaneous tissue can improve the outward appearance. Treatment with topical corticosteroids has not been shown to be effective.[12]

To date, few cases of pachydermodactyly have been reported in the medical literature, probably because its prevalence is underestimated due to its asymptomatic nature and the fact that it does not limit joint mobility. We believe it is necessary to consider other disorders in the differential diagnosis in order to avoid unnecessary additional tests and treatments, as pachydermodactyly is a completely benign disorder and does not require treatment.

References

1. Verbov J. Pachydermodactyly. A variant of the true knuckle pad. Arch Dermatol. 1975;111:524.
2. Shuang Y, Shun-Le C, Yu-Qi D. Pachydermodactyly: six new cases from China. J Clin Rheumatol. 2005;11:72-5.
3. Rai A, Zaphiroupoulos G. An unusual case of periarticular soft tissue finger swelling in an adolescent male: pachydermodactyly or pachydermoperiostosis?. Br J Rheumatol. 1994;3:677-9.
4. Touraine A, Solente G, Golé L. Un syndrome osteodermopathique: la pachydermie plicaturée avec pachyperiostose des extremités. Presse Med. 1935;43:1820-4.
5. Santos-Durán JC, Yuste-Chaves M, Martínez-González O, Alonso-San Pablo MT, Sánchez-Estella J. Paquidermoperiostosis (síndrome de Touraine-Solente-Golé). Descripción de un caso. Actas Dermosifiliogr. 2007;98:116-20.
6. Yanguas I, Goday JJ, Soloeta R. Pachydermodactyly: report of two cases. Acta Derm Venereol. 1994;74:217-8.
7. Bordel Gómez MT, Torrelo A, De Prada I, Mediero IG, Zambrano A. Fibromatosis hialina juvenil. Actas Dermosifiliogr. 2004;95: 54-7.
8. García-Miguel J, Blanch-Rubió J, Calvo N, Iglesias M. Varón joven con paquidermodactilia: hallazgos radiológicos. Reumatol Clin. 2005;1:131-3.
9. Kopera D, Soyer HP, Kerl H. An update on pachydermodactyly and a report of three additional cases. Br J Dermatol. 1995;133:433-7.
10. Meunier L, Pailler C, Barneon G, Meynadier J. Pachydermodactyly or acquired digital fibromatosis. Br J Dermatol. 1994;131: 744-6.
11. Sandobal C, Kuznietz A, Varizat A, Roverano S, Paira S. Pachidermodactyly: four additional cases. Clin Rheumatol. 2007;26:962-4.
12. Iraci S, Bianchi L, Innocenzi D, Tomassoli M, Nini G. Pachydermodactyly: a case of an unusual type of reactive digital fibromatosis. Arch Dermatol. 1993;129:247-8.

A.M. Morales Callaghan,[a,*] C. Horndler Argarate,[b] F.J. García Latasa de Araníbar,[c] and M.L. Zubiri Ara[a]

[a]*Servicio de Dermatología, Hospital Miguel Servet, Zaragoza, Spain*
[b]*Anatomía Patológica, Hospital Miguel Servet, Zaragoza, Spain*
[c]*Servicio de Dermatología, Hospital Royo Villanova, Zaragoza, Spain*

*Corresponding author.
E-mail address: acallaghan@aedv.es
(A.M. Morales Callaghan).

Subungual Squamous Cell Carcinoma. Presentation of two Cases

Carcinoma escamoso subungueal. Presentación de dos casos

To the Editor:

Primary malignant subungual tumors are rare, although, of these, squamous cell carcinoma (SCC) is the most frequent. Initial diagnosis is frequently delayed by the relatively nonspecific clinical presentation, easily confused with benign inflammatory conditions such as paronychia, pyogenic granuloma, or a common wart. Diagnosis of this kind of lesion is only possible by pathology study of a biopsy. Treatment requires complete excision of the lesion, often leading in turn, to amputation of the distal phalanx of the affected finger. We describe 2 new cases of difficult-to-diagnose subungual SCC.

The first patient was a man aged 73 years, with a history of hypertensive-ischemic heart disease, who consulted with an excrescent lesion of the nail bed of the first finger of the right hand which had developed over the previous 4 years (Figure 1). The patient reported no possible triggering factors such as repeated injury or viral warts at this site. Surgery was performed twice on the patient, and the pathology diagnosis was digital fibrokeratoma. The patient had responded poorly to treatment with different topical antibiotic and antifungal agents. Examination revealed a suppurating tumoral lesion, adherent to the nail plate of the first finger of the right hand and causing painful onychodystrophy. An ingrown nail with excessive granulation tissue was suspected. A biopsy confirmed the diagnosis of subungual SCC, and the lesion was excised. No bone involvement was evident on an x-ray of the first finger of

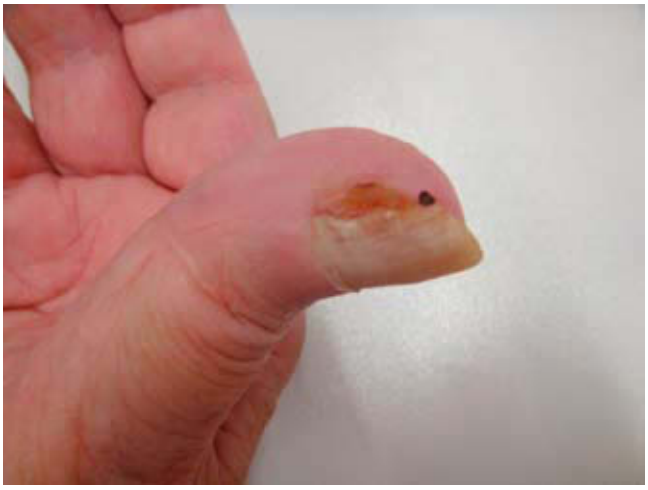

Figure 1 Excrescent lesion at the lateral border of the nail plate with minimal superficial erosion.

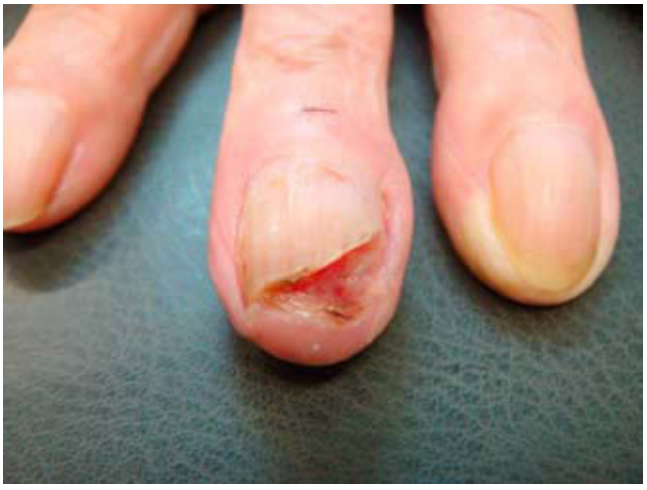

Figure 2 Excrescent subungual tumor, with a fleshy, erosive appearance.

the right hand, and examination revealed no axillary lymph node involvement. Since histology of the specimen revealed that the surgical margins were affected, wider resection was proposed; however, the patient refused to undergo further surgery or to consider other treatment options, despite the risk of lesion recurrence and metastasis.

The second patient was also male, aged 83 years, with type 2 diabetes mellitus and chronic kidney failure, who consulted for a 2-year history of a very painful lesion on the third finger of the left hand (Figure 2). The lesion had been treated on several occasions with topical and oral antifungal agents; the patient was finally referred to a dermatologist given the suspicion of a subungual pyogenic granuloma. A biopsy performed to rule out a tumor confirmed a diagnosis of subungual infiltrating SCC (Figure 3). An x-ray revealed erosion of the distal phalanx, and the patient was referred to the orthopedic department for amputation. Medical and functional outcomes were satisfactory.

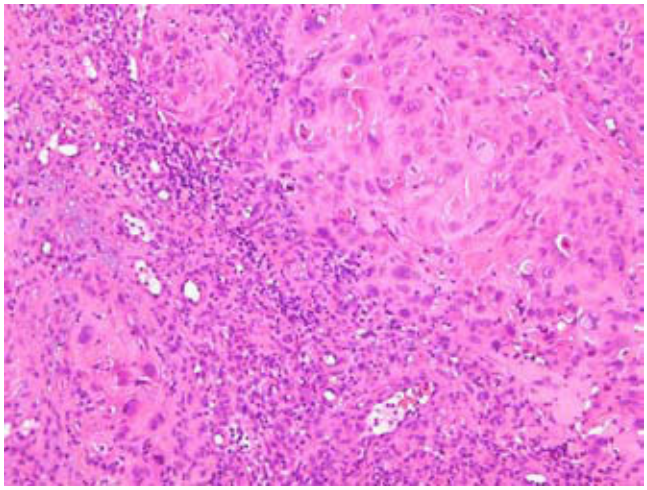

Figure 3 Proliferation of squamous cells with marked atypia infiltrating the dermis. Note the frequent mitotic figures and abundant dyskeratotic cells. Hematoxylin-eosin, original magnification ×100.

Malignant subungual tumors may be primary or metastatic. Metastasis from internal tumors, which is very rare, usually originates from tumors in the lung, genitourinary tract (especially the kidney), or breast. Metastasis indicates a poor prognosis as it is a sign of disseminated disease.[1]

Subungual SCC, first described by Velpeau in 1850,[2] is a tumor with little aggressive potential, and axillary lymph node spread and metastasis are both rare. Bone involvement has been reported in 17% and 66% of cases,[3,4] with the difference explained by diagnostic delay.

The condition, which generally affects men aged over 50 years, most typically occurs on the distal phalanx of either of the first two fingers of the hands, but has also been reported on the toes.[3-6]

The etiology of these tumors is unknown, although repeated injury, chronic infection, ionizing and nonionizing radiation, arsenicals and tar, and, above all, human papillomavirus infection can all be considered as risk factors.[6-8] The fact that clinical presentation resembles conditions such as ingrown nails, pyogenic granuloma, warts, and melanonychia frequently leads to incorrect or delayed diagnosis, resulting in inappropriate or delayed treatment.

In recent years, a viral origin has been postulated as the cause of many skin tumors, among them subungual SCC. Type 16 human papillomavirus, which is typical in genital warts, is most associated with subungual SCC; transmission probably occurs from scratching of the genital region.[8-10] Other factors are undoubtedly involved in the malignancy, as viral warts on the hands are very common, whereas the development of subungual SCC is rare.

The therapeutic options vary depending on the extent of the tumor. Mohs surgery achieves a satisfactory outcome for noninvasive lesions with no bone involvement. For tumors with bone involvement, the treatment of choice is amputation at the level of the distal or middle phalanx, depending on the extent of the tumor.[11-13] Some authors recommend performing sentinel lymph node biopsy to

detect subclinical lymphatic metastasis, as the method carries a low morbidity.[14]

In conclusion, our most important recommendation regarding the management of a subungual lesion that is progressing unfavorably is to perform a suitable and timely biopsy. The aim is to make an early diagnosis, thereby avoiding, if at all possible, amputation and the associated distress.

References

1. Cohen PR Metastatic tumors to the nail unit: subungual metastases. Dermatol Surg. 2001;27:280-93.
2. Velpeau M. Tumeur cancérouse de la phalange unguéale de l'indicateur ayant débuté par la matrice de l'ongle. Amputation. Guérison. Gazette des Hôpitaux de Paris. 1850;2:314.
3. Wong TC, Ip FK, Wu WC. Squamous cell carcinoma of the nail bed: three case reports. Journal of Orthopaedic Surgery. 2004;12:248-52.
4. Miknail GR. Subungueal epidermoid carcinoma. J Am Acad Dermatol. 1984;11:291-8.
5. Connil C, Verger E, Vilata A, Palou J. Case report: squamous cell carcinoma of the nail bed. Br J Radiol. 1993;66:163-4.
6. Cogrel O, Beylot-Barry M, Doutre MS. Subungual cell carcinoma revealed by longitudinal erythronychia. Ann Dermatol Venereol. 2008;135:883-5.
7. Youssef S, Sfia M, Jaber K, Dhaoui MR, Bouziani A, Doss N. Squamous cell carcinoma of the nail bed. Ann Dermatol Venereol. 2007;134:302-4.
8. Corbalán-Vélez R, Ruiz-Maciá JA, Brufau A, Carapeto FJ. Carcinoma espinocelular cutáneo y papilomavirus (VPH). Actas Dermosifiliogr. 2007;98:583-93.
9. Turowski CB, Ross AS, Cusack CA. Human papillomavirus-associated squamous cell carcinoma of the nail bed in Africa-American patients. Int J Dermatol. 2009;48:117-20.
10. La Placa M, Venturoli S, Dika E, Saccani E, Rech G, Fanti PA. Human Papillomavirus type 16 detected in four periungual squamous cell carcinomas from the same patient. G Ital Dermatol Venereol. 2009;144:212-3.
11. Peterson RS, Layton EG, Joseph AK. Squamous cell carcinoma of the nail unit with evidence of bony involvement: A multidisciplinary approach to resection and reconstruction. Dermatol Surg. 2004;30:218-21.
12. Goldminz D, Bennett RG. Mohs micrographic surgery of the nail unit. J Dermatol Surg Oncol. 1992;18:721-6.
13. De Berker DA, Dahl MG, Malcom AJ., Lawrence C.M. Micrographic surgery for subungual squamous cell carcinoma. Br J Plast Surg. 1996;49:414-9.
14. Ross AS, Schmults CD. Human papillomavirus-associated squamous cell carcinoma of the nail bed in Africa-American patients. Dermatol Surg. 2006;32:1309-21.

M. Gómez Vázquez,[a,*] R. Navarra Amayuelas,[a] M.T. Martin-Urda,[a] C. Abellaneda Fernández,[a] and G. Tapia[b,c]

[a]*Servicio de Dermatología, Hospital Municipal de Badalona, Barcelona, Spain*
[b]*Servicio de Anatomía Patológica, Hospital Municipal de Badalona, Barcelona, Spain*
[c]*Servicio de Anatomía Patológica, Hospital German Trias y Pujol de Badalona, Barcelona, Spain*

*Corresponding author.
E-mail address: mergova@terra.es (M. Gómez Vázquez).