


Paraffin granuloma of the foreskin

Dear Editor,

Paraffinoma, also known as oleoma or lipogranuloma, consists of a granulomatous foreign-body reaction to different oily external substances, especially those containing straight-chain, saturated hydrocarbons in any part of the body. It appears as a consequence of the lack of necessary enzymes to metabolize the exogenous interstitial oil in the human body.1

A 13-year-old male presented with a 4 months history of a penis lesion. Ten months prior he had undergone surgical treatment for phimosis. Immediately after the intervention, he had started to apply Vaseline and a betamethasone/gentamicin cream uninterruptedly for 1 month. Four months later, he developed an itchy lesion for which betamethasone/gentamicin cream was restarted followed by increasing size and worsening of the lesion. Physical examination revealed a well-defined, 2-cm, pink-colored, exudative plaque on the upper edge of the foreskin (Fig. 1). A biopsy showed extensive areas of fibrosis and mixed inflammation composed of plasma cells, lymphocytes, neutrophils, eosinophils, and histiocytes. Numerous histiocytes were recognized with multiple cytoplasmic vacuoles of variable size, optically empty and negative for PAS and PAS-D diastase stain (Fig. 2).

Daily cleansing and discontinuation of the betamethasone/gentamicin cream were prescribed. After 3 months, the lesion had partially improved and appeared smaller. The patient was then lost for follow-up.

Injection of paraffin, petroleum jelly, petrolatum, or other mineral oils into the penis to increase its size is known to cause important skin complications. Paraffinomas often appear months or years after injection and usually present as indurated nodules. Paraffin reactions in the penis cause anatomic deformity, erythema, and edema with consequent paraphimosis and pain. Complications include infection, ulceration, necrosis, and fistulization of the lesions. Migration of the injected material can cause regional lymphadenitis and fatal dissemination.1

On histology, normal subcutaneous tissue is replaced by cystic spaces of different sizes that represent lakes of oily substance, simulating Swiss cheese. These spaces seem empty after conventional hematoxylin and eosin staining. In addition, dense fibrous tissue with a chronic granulomatous inflammatory reaction is observed.2

Paraffinoma has been described after sinus surgery or blepharoplasty with application of occlusion ointments containing substances such as paraffin or lanolin, but the exact role of each oil has not been determined.3,4 Only a case of paraffinoma in the penis after the topical application of an ointment with paraffin has been previously reported, and extensive tumor growth was followed by castration.5

The most appropriate treatment for paraffinoma is surgery. Corticosteroids may induce satisfactory results. The objective is
the complete removal of the lesion with preservation of the rest of the skin.\textsuperscript{1} We have presented a case of penile paraffinoma in a child after phimosis surgery. It is remarkable that this complication has not been reported despite how commonly phimosis surgery is performed. Since paraffin is part of many topical compounds, the possibility of developing a paraffinoma should be considered as long as the applied substance might reach the subcutis. Long-term application of oily substances over nonintact skin or surgical wounds should be followed carefully.

Maria Arteaga \textsuperscript{1}, MD
Isabel Colmenero \textsuperscript{2}, MD
Lucero Noguer-Morel \textsuperscript{1}, MD
Angela Hernández-Martin \textsuperscript{1}, MD
Antonio Torrelo \textsuperscript{1*}, MD

\textsuperscript{1}Department of Dermatology, Hospital Infantil Universitario Niño Jesús, Madrid, Spain
\textsuperscript{2}Department of Pathology, Hospital Infantil Universitario Niño Jesús, Madrid, Spain
\textsuperscript{*}E-mail: atorrelo@aedv.es

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References

Spontaneous resolution of human papillomavirus infection in a patient with psoriasis given secukinumab

Dear Editor,

Disruption of the cytokine signaling pathway plays a key role in the development of human papillomavirus (HPV) infections. HPV has been reported to increase IL-17 secretion that induces keratinocyte proliferation. It has also been reported that high IL-17 expression is seen in HPV-associated neoplasms.\textsuperscript{1,2} In addition, the immunosuppressive effect of IL-17 in epithelial hyperplasia caused by high-risk HPV has been shown in vitro.\textsuperscript{3} IL-17 also plays an important role in the pathogenesis of psoriasis. Secukinumab is a human monoclonal IgG1 antibody that selectively binds to IL-17A, the main isoform of IL-17.\textsuperscript{4} A 37-year-old male patient presented to our outpatient clinic with a history of psoriasis for 14 years. The patient had previously received topical treatments and systemic treatments such as methotrexate. On examination, in addition to psoriasis lesions, more than 20 lesions consistent with verruca plana were observed on the dorsum of the right hand and one on the left hand. Both psoriatic lesions and warts disappeared after 5 months of secukinumab treatment (Fig. 1).

The effect of secukinumab treatment on the prevalence of HPV in psoriasis patients was investigated by Chiu et al.\textsuperscript{5} For the detection of HPV, skin scrapings were collected from the scalp and eyebrows at the 12th, 24th, and 156th weeks of the treatment in 32 patients receiving secukinumab and analyzed by HPV genechip. The prevalence of HPV DNA in both eyebrows and scalp-scaping samples decreased significantly at the 12th, 24th, and 156th weeks of treatment. After 156 weeks of secukinumab treatment, HPV DNA was negative in 63.2% of samples and the negativity was higher in patients with an improvement of more than 75% in PASI.\textsuperscript{5} Although the mechanism by which anti-IL-17 treatment reduces HPV detection is not fully understood, research found that elevated IL-17 was associated with inhibited effective host immune responses against HPV.\textsuperscript{5}

Brunet-Possenti et al. reported that warts completely regressed after treatment was started in two psoriasis patients, who received secukinumab. In addition, in five psoriasis patients, who started secukinumab treatment, genital swab samples were taken at the beginning of treatment, and the presence of HPV was detected in four patients. After 3 months of treatment, three of the four patients with HPV showed a marked decrease in the number of HPV types.\textsuperscript{6} In our case, we observed that short-term secukinumab treatment has a beneficial effect on cutaneous HPV infections.

In conclusion, although the mechanism by which secukinumab treatment reduces HPV detection is not fully understood, we think that secukinumab treatment may be a new therapeutic approach in patients with recalcitrant cutaneous HPV infection.

Erhan Ayhan \textsuperscript{1*}, MD
Murat Oztürk \textsuperscript{2}, MD
Isa An \textsuperscript{3}, MD

\textsuperscript{1}Department of Dermatology, University of Health Sciences Gazi Yaşargil Education and Research Hospital, Diyarbakır, Turkey