

**Betamethasone valerate/
dexamethasone/gentamicin****First report of cutaneous/subcutaneous
protothecosis aggravation: case report**

An 82-years-old woman developed cutaneous/subcutaneous protothecosis aggravation during treatment with betamethasone valerate/gentamicin [betamethasone valerate/gentamicin sulphate] and dexamethasone.

The woman had erythema accompanied by pain and itching on her right forearm, before 8 months. Six months earlier, she was treated with bepotastine besilate and cefaclor as well as topical dexamethasone propionate ointment and betamethasone valerate/gentamicin ointment [*dosage not stated*], for 3 months. She visited hospital as the swelling, pain and itch on the right upper limb became intense, with a gradual progression in the size of the erythema, including agglutination accompanied by ulcer formation and drainage inside lesions [*duration of treatment to reaction onset not stated*]. Her clinical examinations revealed a mild level of inflammation along with CRP of 1.45 mg/dL. A biopsy revealed hyperkeratosis and parakeratosis, a high degree of inflammatory cell infiltration, mainly consisting of neutrophils, lymphocytes and histiocytes. The images of the abscess and granuloma revealed multiple numbers of multi-nucleate giant cells in which spore-like, mulberry-shaped or wheel-shaped structures, positive to PAS staining, were observed. Culture test showed sporangia containing endogenous spores with a mulberry or wheel shape inside the bacteria. Api-C-auxanogram findings revealed the results corresponded to *Prototheca wickerhamii* (*P. wickerhamii*). Molecular biological examination revealed 99% homogeneity with *P. wickerhamii*. She was diagnosed with cutaneous/subcutaneous prototocosis caused by *P. wickerhamii*.

The topical application of steroids was discontinued. The woman received treatment with itraconazole after which the skin biopsy test was negative in culture and PCR testing. The condition was cured with no relapse.

Author comment: *[We believe that the use of topical steroids for over six months without a definitive diagnosis aggravated the condition.]*

Ohira A, et al. A case of cutaneous protothecosis. Nishinihon Journal of Dermatology 77: 378-384, No. 4, Aug 2015 [Japanese; summarised from a translation] - Japan 803164733

» **Editorial comment:** A search of AdisBase, Medline and Embase did not reveal any previous case reports of cutaneous/subcutaneous prototocosis associated with betamethasone valerate and dexamethasone. The WHO ADR database report is pending.