

BILATERAL ATRAUMATIC OSTONECROSIS OF THE TALUS AND TOPICAL STEROIDS: A CASE REPORT

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INTRODUCTION:

Milestone has been achieved in dermatologic therapy by the usage of topical corticosteroids. However, it can cause enough mischief if used inappropriately with varying degrees of severity. Systemic adverse effects are possible because of enhanced percutaneous absorption in diseased skin. Reports of osteonecrosis of the talus in patients of prurigo nodularis on steroids are rare and it is a serious complication that directly inhibits walking because of collapse talus.

CASE PRESENTATION:

A 34 years old male patient with underlying chronic prurigo nodularis came with complain of pain over the bilateral ankle for 1 year. Pain was so severe rendering him unable to ambulate. He has skin lesion (prurigo nodularis) predominantly over the bilateral ankle with history of prolonged topical steroid applications (Betamethasone 0.1% cream) over the bilateral ankle. Unfortunately, he presented late in the course of the disease, in which it has already progressed to fracture and collapse of the talus. X-ray revealed the inevitable sequelae of talar body collapse.

DISCUSSIONS:

Talus is the second largest of the tarsal bones with a unique structure designed to channel and distribute body weight. Only a limited area of penetrable bone is available for vascular perforation making it depend on extraosseous arterial sources, and variable intraosseous blood supply predisposing it to osteonecrosis. Diseased skin has impaired barrier function resulting in enhanced percutaneous absorption. However, actual relationship between the dose and the mode of administration of steroid and the risk of developing osteonecrosis has not been fully determined.

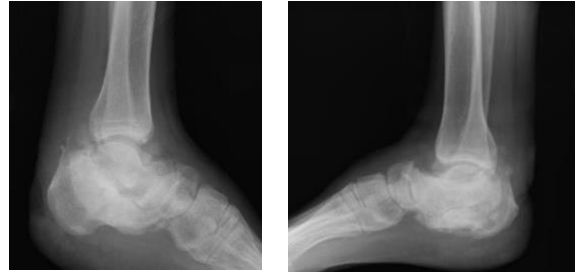


Figure 1 & 2: Left and Right Ankle X-ray



CONCLUSION:

Over the decades, corticosteroids are currently the most widely used because of their effect on the inflammatory process. Since prurigo nodularis patients need long-term administration of high-dose steroids they are at a higher risk of developing osteonecrosis. There are currently insufficient data on the actual prevalence of osteonecrosis in prurigo nodularis patients and the disease-specific risk factors for developing the same in review of the literatures. Therefore, the increase of the prevalence of these cases is possible in the future because of the wide use of corticosteroids for dermatologic diseases. Thus, patients on corticosteroid therapy should be carefully monitored for the potential risk as osteonecrosis as it is a challenging entity to treat.

REFERENCES:

1. KL Chan, CC Mok. Glucocorticoid induced avascular bone necrosis: diagnosis and management. *The Open Orthopaedic Journal* 2012.
2. Delanois RE, Mont MA, Yoon TR et al. Atraumatic necrosis of the talus. *J Bone Joint Surg* 1998.