

Association Subungual Abscess and Pyogenic Granuloma Secondary to Docetaxel Therapy

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ABSTRACT

Only a few cases of subungual abscesses due to docetaxel have been described previously. Our case is interesting due to the occurrence of subungual abscesses and pyogenic granuloma (PG). PG is a benign vascular and inflammatory tumor usually presenting as a rapidly evolving solitary, sessile, or polypoid vascular nodule prone to ulceration or hemorrhage. Its precise pathogenesis remains unclear, and several hypotheses such as trauma, hormonal influences, infection, viral oncogenes, microscopic arteriovenous anastomoses, and growth factors have been implicated. Adequate surgical excision of the lesion is the treatment of choice, but due to the subungual localization and the patients chemotherapy, we chose local therapy. To our knowledge, the case described here is the first to report of subungual PG as a side-effect of docetaxel treatment.

Key words: Subungual, granuloma, docetaxel

INTRODUCTION

Docetaxel is a chemotherapeutic agent used in the management of many neoplastic conditions. Various side effects are known. Ungual changes are often overlooked or attributed to other causes.

We report a case of multiple unguinal abscesses associated with pyogenic granuloma (PG).

Observation

A 50-year-old patient presented with undifferentiated small cell lung carcinoma. She was first treated with cisplatin-based chemotherapy and gemcitabine (five cycles). 8 months later, brain and bone metastases were diagnosed; brain radiotherapy and a second cycle of chemotherapy as monotherapy with docetaxel were administered.

About 5 weeks after the third course of docetaxel, our patient developed nail onycholysis with dyschromia and disseminated hemorrhage. There was a painful subungual collection with greenish and smelly pus associated with

a paronychia of the index finger and thumb [Figures 1 and 2]. Bacteriological cultures revealed the presence of *Staphylococcus aureus* and *Klebsiella oxytoca*. Oral treatment with ciprofloxacin was given in conjunction with topical citric acid treatment and diluted immersion bleach with improved bacterial overinfection and persistence of onycholysis with serous fluid flow. Distal avulsion showed subungual PG. Exeresis was performed and histology confirmed this diagnosis. Evolution has been marked by healing.

DISCUSSION

Docetaxel is a semi-synthetic drug of the taxoid class. It is used in the treatment of breast cancer, ovarian cancer, and lung cancer. The most common side effects are neutropenia, peripheral neuropathy, fluid retention syndrome, alopecia, and skin reactions and occur in approximately 50% of treated patients.^[1] Dermatological side effects are generally mild and include maculopapular exanthema, urticaria, erythematous plaques, erythrodysesthesia, and acral desquamation and nail dystrophy.^[2,3] The latter affects 30–40% of patients treated

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Figure 1: Subungual collections



Figure 2: Subungual collection with paronychia

with docetaxel, whereas this incidence is only 2%. In patients treated with paclitaxel. Side effects include onycholysis, often preceded by purpura, disseminated hemorrhage, hemosiderin pigmentation, paronychia, and subungual abscesses. These lesions appear to be unrelated to the dose or frequency of administration.^[1,4] They usually occur about 12 weeks after the first treatment and generally progress to a satisfactory result despite continuous chemotherapy, so interruption of chemotherapy is not necessary. The physiopathogenic mechanisms are not well known.

The direct toxicity of the nail bed or the inhibition of angiogenesis of the nail bed is possible mechanisms.^[5]

Rare cases of subungual abscess due to docetaxel have been reported in the literature, whereas the case described here is, to our knowledge, the first to report.

A PG as a side effect to docetaxel. Our case is interesting due to the combination of these two side effects. Adequate surgical excision of PG is the treatment of choice, but due to the subungual localization and chemotherapy of patients, we chose to cool the abscesses with antibiotic therapy and postpone the surgical procedure.^[2,5,6]

CONCLUSION

Onycholysis is due to a direct toxicity of the nail bed. Immunodepression promotes the surinfection and the installation of abscesses under the nail. We believe that PG is the consequence of these two favorable conditions: Onycholysis and infection.

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