MEDICAL THERAPIES AND PHARMACOLOGY

TOPICAL BETAXOLOL IMPROVED PARONYCHIA AND PYOGENIC GRANULOMA INDUCED BY EPIDERMAL GROWTH FACTOR RECEPTOR INHIBITORS: AN OPEN-LABEL CASE SERIES STUDY OF 35 PATIENTS WITH NON-SMALL CELL LUNG CANCERS.

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Introduction: Paronychia is one of the most common adverse occurrences caused by epidermal growth factor receptor (EGFR) inhibitors. However, a high percentage of post-treatment discomfort and infection, high recurrence rate, and increased time to return to work were noted after nail plate avulsion.

Objective: The aim of this study is to find an efficient, pain-relieve and non-invasive treatment for patients with severe paronychia with pyogenic granuloma-like lesions induced by EGFR inhibitors.

Method: This was a retrospective case series and we used topical β-blocker, betaxolol 0.25% eye drops, once daily on the paronychia with pyogenic granuloma-like lesions of fingers or toes under occlusion. Patients' demographic characteristics, lesion localization (fingernails, toenails, or both), number of lesions, duration of antineoplastic treatment before the appearance of lesions, grading of paronychia, and pain score before and after the treatment were recorded.

Results: Of the 35 patients suffering from grade 2 or 3 paronychia with pyogenic granuloma-

like lesions induced by EGFR inhibitors, 34 (97.1%) patients demonstrate complete resolution and only 1 (2.9%) patient with partial resolution after 12 weeks of topical betaxolol treatment. All patients were improvement responders (50% pain reduction) as the pain visual analogue scale (VAS) scores downgraded from the average of 7.06 to 2.26 after one week treatment. In our study, none required EGFR inhibitors dose modification or (discontinuation issued by oncology while using topical therapy. No side effect was observed or reported.

Conclusion: Betaxolol 0.25% eye drop is an effective and pain-relieve treatment for patients suffering from EGFR inhibitors induced paronychia with pyogenic granuloma-like lesions. Topical betaxolol would be a safe remedy to be used even when there're many and large pyogenic granuloma-like lesions induced by EGFR inhibitors in lung cancer patients with only a minimal increased respiratory distress risk.