



PIGMENTATION

EFFICACY, TOLERABILITY, AND COST OF ORAL TRANEXAMIC ACID FOR THE TREATMENT OF MELASMA

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Background: Melasma is a common disorder which is often difficult to treat and causes a significant burden on quality of life. Recently, the anti-fibrinolytic tranexamic acid (TA) has been identified as a potential systemic treatment for melasma, however, studies in North American populations are lacking.

Objective: To identify the efficacy, tolerability, and cost of oral TA and triple combination (TC) cream (6% hydroquinone, 0.0125% tretinoin, 0.1% dexamethasone) for patients with melasma compared to those on TC cream alone.

Materials and Methods: We performed a retrospective cohort review of melasma patients treated with TA 325mg tablets twice daily and TC cream once daily compared to controls treated with TC cream alone at our center from June 2016 to July 2018. A modified Melasma Area Severity Index (mMASI) score was performed on photographs obtained at all visits. An unpaired t-test was used to compare change in mMASI scores of both groups at 3, 6, 9, and 12-18 months.

Results: 37 patients with melasma were treated with TA and 14 controls, with median length of follow up 167 and 120 days, respectively. The average mMASI of patients on TA improved 63% (from 7.22 to 2.62), compared to 22% in controls (from 6.01 to 4.46, $p=0.0001$). The cost of a 30-day supply of TA was \$48-78. No subjects experienced deep venous thrombosis or other serious adverse events. The most common side effect was mild muscle aches in 11% of patients in the TA group.

Conclusion: Oral tranexamic acid may be an effective systemic treatment for melasma and appears to be well tolerated and have relatively low cost. Larger, prospective studies with longer follow up durations should be performed.

