

Cocktail Treatment (Combination Of 5-FU + TAC) in the Treatment of Hypertrophic Scars and Keloids: A Clinical and Histopathological Correlation

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INTRODUCTION: Hypertrophic scars and keloids remain difficult problems, the treatment of which is both challenging and controversial¹ Treatment modalities include established therapies like surgery, intralesional steroids, compression, silicon gel sheet; as well as more experimental therapies like interferon, intralesional bleomycin, intralesional 5-FU.^{2,3,4} The large number of treatment options reflects that there is no treatment, which is universally proven to be most effective. The present study has been done to compare the efficacy and safety of three drug regimens; intralesional triamcinolone acetonide (TAC) versus 5-Fluorouracil (5-FU) versus combination of 5-FU + TAC in the treatment of keloids and hypertrophic scars.

MATERIALS AND METHODS: A total of 32 patients (13 male and 19 female) were treated once weekly with intralesional treatment. Patients were divided into 3 groups: Group A received intralesional triamcinolone acetonide. Group B was treated with intralesional 5-Fluorouracil. Group C patients were treated with the combination of 5-FU + TAC. Patients received 4 treatment sessions with an average injection volume of 0.2-0.4 mL / cm². All patients had biopsy specimen taken before commencing treatment and after 4 sessions. The percentage of lesion volume reduction and symptoms of pain and pruritis were evaluated. Routine hematoxylin-eosin and immunohistochemical analysis detecting Ki-67 were performed.

RESULTS: Patients who received the combination of 5-FU + TAC (group C) had a 79.33 % change in volume of scar compared to 39.74 % in the group of patients receiving steroid (TAC) monotherapy (group A), which was statistically significant (p=0.001). Vancouver Scar Score (VSS), Visual Analog Scale (pain), VAS (pruritis) showed an improved response in patients receiving the combination treatment as compared to monotherapy. Differences in complication rates were significantly better in combination group as compared to monotherapy group. Histopathologic and immunohistochemical evaluation were consistent with the clinical observations. Ki-67 proliferative index, was significantly reduced after treatment with 5-FU (p value 0.001), and combined 5-FU + TAC (p value 0.003).

CONCLUSION: Our study found that the cocktail treatment (combination of 5-FU + TAC) was more effective and better tolerated than 5-FU or TAC monotherapy, in the treatment of hypertrophic scars and keloids. Thus, cocktail treatment (combination of 5-FU + TAC) should be placed ahead of triamcinolone acetonide (TAC) in the treatment of hypertrophic scars and keloids.

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