



MEDICAL THERAPIES AND PHARMACOLOGY

## TREATMENT OF HYPERTROPHIC SCARS: 2 CASE STUDIES USING INTRA-LESIONAL METHOTREXATE

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**Background:** Hypertrophic scars/keloids remain major problems despite modern treatments. Their clinical significance lies in the distressing aesthetic problem they pose at many sites on the body.

**Aim:** To evaluate the effectiveness of intra-lesional methotrexate (MTX) in the treatment of hypertrophic scars.

Two patients with hypertrophic scars resulted from chemical burns were treated with intra-lesional methotrexate. First patient is a female patient, 11 years old had the scars covering her chest, right arm. Second patient is a male patient, 7 years old with scar covering right side of his face & also chin area.

Patients received 10 mg MTX (50mg / 5 ml) delivered intra-lesionally at 3-4 week intervals. During the first 3 sessions, MTX was diluted with saline (1 ml MTX to 1 ml saline) then MTX dose was given undiluted.

Laboratory tests were done initially & at 3 months interval. Photographs were taken before starting treatment & before every session. Both patients took Folic acid supplementation during the treatment period. Evaluation was performed with the "Vancouver Scar Scale" (VSS) before and during treatment and by photographs taken before and during treatment.

**Observations:** Both patients were markedly improved. 1st patient: VSS score for the chest improved from 9/13 to 5/13 and for the arm from 12/13 to 8/13. 2nd patient: VSS score for the face improved from 9/13 to 5/13 on markedly hypertrophic areas & from 5/13 to 1/13 on rest of areas. Adverse effects included burning sensation at injection sites. Nausea at time of injection (with 2nd case & not reported during all sessions). However, these adverse effects were not severe to stop the treatment.

**Key message:** Methotrexate is an effective treatment option for hypertrophic scars. However, further studies are needed to assess maximum dose to be injected & precautions to be considered.

