Treatment of post burn/hypertrophic scar using a non insulated smooth motion, electronically controlled micro needles RF system combined with intralesional triamcinolone acetonide with 5 Fluourouracil.

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No disclosures
Hypertrophic scar

• Pathological scars which happens because of abnormal response to trauma.
• It may result in pain & or itching.
• It can be because of chronic inflammation.
• Typically remains confined within borders of initial insult.
Etiology

Process of wound healing
1. Haemostasis
2. Inflammation
3. Proliferation
4. Tissue remodelling

Alteration of last 3 stages leads to excessive extracellular matrix (ECM) which is fibroblast derived.
Also there is excessive production of collagen,
Over long periods because of chronic inflammation.
• Various lasers have been used to treat hypertrophic scars most common being CO2, ER-GLASS, Nd Yag laser.

• 5-flurouracil (5-FU) & corticosteroids injections intralesionally.
Why did I choose MNRF

• Most of the indications which are being treated by CO2 Laser can be done by Micro Needling RF, Type V & Type VI Skin.

• The Obvious reason for that is lesser down time and lower chances of PIH with RF as it is colour blind.
Non Insulated FPM RF Needles

- Coagulation along all needle depth- No bleeding points
- Only one pass is needed
- Fractionated Pulse Mode leads to uniform heat dissipation
- Wider coagulation around the needle
- Maximum depth of needles are upto 3.5mm.
Mode of Insertion

Manually - traumatic, usually short needles, uncontrolled

Spring - ’Shoot’ the needles into the skin, can be traumatic to the Epidermis.

Electronically controlled motorized insertion - the needles are inserted slowly without extensive trauma to the epidermis.
Intralesional TAC, 5FU Injection in Hypertrophic Scar

• A combination of TAC+5FU of a balanced benefit of faster and more efficacious response.
• The combination has got lesser adverse effect compared with individual drugs.
• Triamcocolone Acetonite (TAC) 10mg /ml. and 50 mg/ml. of 5-FU were combined in 1:1 to 1:3 dilution
• The treatment has to be individualized.
• Can be combined with one or more modalities for better results and safety.
Materials and Method

• We undertook a retrospective study of 10 patients of post burn hypertrophic scars with combination of above modalities.
• Number of Sessions varied from 5 to 20.
• All the procedures were performed at an interval of 4-6 weeks.
• Topical anesthesia was used under occlusion for the procedures.
Adverse Effect

• In big Scars procedure was moderately painful
• Higher concentration of 5-FU was associated with more stinging and burning.
• No secondary infections were seen after any of the procedures.
• Didn’t come across any skin necrosis.
Conclusion

• We found extremely good results in about 50% of the patients and satisfactory results in rest of the cases.
• Downtime was much less as compared to CO2 Laser.
• In most of the cases, visible results appeared after third session.
• This combination of modalities needs to be explored in more number of cases specially in darker skin types.
References

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thank you...