

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 Flurouracil.

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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 fluorouracil (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.
- Triamcnenolone 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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