

*Research Article***The Role of Microneedling in Treatment of Stretch Marks****Wael H. Abd El-Razek, Maha H. Ragaie and Al-Shaimaa M. Shehata**

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**Abstract**

**Background:** Stretch marks (Stiae Distencae, SD) are visible linear scars which form in areas of dermal damage produced by stretching of the skin. Stretch marks or stiae distencae are a very common problem in which treatment remains a challenge. In early stages stiae appear pink to red (stiae rubra), which over time become atrophic and attained a white colour (stiae alba). **Objectives:** This work aims to evaluate the role of microneedling in treatment of stretch marks. **Methods:** The study was conducted on 20 patients with stretch marks. The age of patients ranged from 17 to 45 years. **Results:** Clinical improvement in most of cases which was in the form of improvement of texture, pigmentation and decrease of length and width of stretch marks. **Conclusion:** Microneedling is safe, simple and effective method in treatment of stretch marks .

**Keywords:** Stretch Marks, Microneedling, treatment.

**Introduction**

Stretch marks (Stiae Distencae, SD) are visible linear scars which form in areas of dermal damage produced by stretching of the skin (Lovell CR, 2016).

Stretch marks or stiae distencae are a very common problem in which treatment remains a challenge (Ud-din, 2016). In early stages stiae appear pink to red (stiae rubra), which over time become atrophic and attained a white colour (stiae alba) (Kharb et al., 2016).

It is a well-recognized common skin condition that rarely causes any significant medical problems, but is often a significant source of distress to those patients affected (Suh et al., 2012).

Pathogenesis of striae distensiae includes retraction of collagen and elastin fibers resulting in a lack of supporting material and an atrophy of epidermis.

Various modalities of treatment have been used to treat stretch marks including topical retinoid therapy, chemical peels, microneedling, ultrasound therapy, micro-dermabrasion, IPL, non ablative rejuvenation either light based (non ablative lasers) or radio frequency, fractional lasers, carboxytherapy and PRP.

Microneedling is a very simple, safe, effective, and minimally invasive therapeutic technique. It is a very safe technique for dark skin types, where risk of postinflammatory pigmentation is very high with other techniques that damage the epidermis. (Singh and Yadav, 2016).

The aim is to evaluate the role of microneedling in treatment of stretch marks.

**Subjects and Methods**

The present study has been conducted on 20 patients with stretch marks attending the outpatient clinic of the Department of Dermatology, STDs and Andrology, Minia University Hospital. All patients were females. The age of patients ranged from 17 to 45 years. They were attending the Dermatology outpatient clinic of Minia University Hospital in the period from June 2021 to December 2021.

All patients were subjected to full history taking, examination, photography and skin biopsy. All patients were subjected to six sessions of microneedling with two weeks interval

**Statistical analysis**

Data were statistically analyzed using SPSS program. The statistical difference between before and after treatment was expressed in p

value which was considered significant when it was  $< 0.05$ .

### Results

We noticed clinical improvement in most of cases which was in the form of improvement of texture, pigmentation and decrease of length and width of stretch marks.

There was mild improvement in 3 patients (15%), 7 patients were moderate improvement (35%), 7 patients were marked improvement (35%) and 3 patients were excellent improvement (15%). There was statistically significant difference before and after treatment ( $p < 0.05^*$ ).

### Discussion

Stretch marks are often the result of the rapid stretching of the skin associated with rapid growth or rapid weight changes. Stretch marks may also be influenced by hormonal changes associated with puberty, pregnancy, body building and hormone replacement therapy. Medical terminology for these kinds of markings includes striae atrophicae, striae distensae (SD), striae cutis distensae, striae gravidarum (in cases where it is caused by pregnancy), linea atrophicae, linea albicante, or simply striae (Atwal et al., 2006).

Microneedling is being used in dermatology for mainly two purposes, firstly, collagen induction therapy for scars, stretch marks and antiageing effect and secondly, for deep transdermal delivery of active substances through epidermal barrier (stratum corneum). The micro-channel formation enhances penetration of product and stimulates collagen production for rejuvenation and treatment of acne scars and stretch marks. (Arora S and Gupta P, 2012)

### Summary and Conclusion

Stretch marks are often the result of the rapid stretching of the skin associated with rapid growth or rapid weight changes. Stretch marks may also be influenced by hormonal changes associated with puberty, pregnancy, body building and hormone replacement therapy. And conclusion, the present study revealed that microneedling is effective and safe in treatment of stretch marks.

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