

# Subcision for rolling acne scarring: Outcome in 15 patients

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## Abstract

**Background:** Treatment of acne scars is a therapeutic challenge that may require the recruitment of multiple modalities. The available options are chemical peeling, punch excision, punch elevation, subcutaneous incision (subcision) and laser resurfacing. Subcision is a non expensive and simple procedure which has been proved to be of value in acne scar treatment.

Objective of this study is to assess the efficacy of subcision in treatment of rolling acne scars.

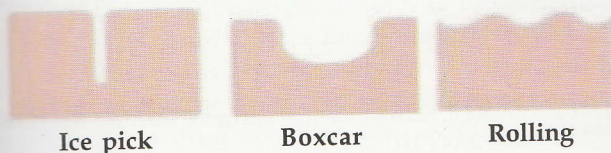
A recommended technique was applied to 15 patients aged 24-45 years. Procedure was done under local anaesthesia at 2 to 4 weeks interval. Patients were followed up for 6 months. Improvement of scars were assessed by patient's satisfaction, 2 independent observer's assessment and serial photographic comparisons.

All patients reported that subcision improved their appearance. The percentage of improvement was graded between 40-70% by most patients and observers. No major side effects reported except pain, swelling and bruising. One patient developed pigmentation at subcision sites.

Subcision appears to be a safe procedure in managing rolling acne scars.

## Introduction

Acne scars are a distressing and difficult problem for both the physician and patient. Recent advances have made the problem more manageable. These management options are decided upon considering expectations of the patient, overall appearance and particularly the morphology of the scars. There are two types of acne scars: 1. Atrophic 2. Hypertrophic or keloidal scarring. Atrophic acne scars are of three types; Ice pick scars, Boxcar scars and Rolling scars.



Treatment options for atrophic scars are chemical peeling, punch elevation, subcutaneous incision (subcision), subcutaneous augmentation and laser resurfacing. When treating a patient it is very important to select the appropriate treatment method depending on the type of scar and available resources. Some of these may be performed in a single session, but often repeated treatment sessions are necessary. In general combination treatments give the best results. Subcision is a non expensive and simple procedure which has been proved to be of value in rolling acne scar treatment.

## Objective

To assess the efficacy of subcision for rolling acne scars.

## Method

A cohort of 15 patients who had been followed up for acne at the Dermatology Clinic, Colombo North Teaching Hospital, Ragama were included in this study. They were in the age group of 20-45 years. 12 were males and 3 were females. In all patients the prominent type of scar was the rolling type. Patients did not have active acne at the time of subcision. The procedure was explained and written consent was obtained. It was carried out under 2% lignocaine anaesthesia at 2-4 week intervals using a 21 gauge hypodermic needle. The needle was inserted under the skin and scar was undermined in the intradermal or subdermal plane. The needle was swept initially backwards and forwards and then from side to side to sever the scar bands. This results in freeing up of skin from its base, which leads to a pooling of blood under the defect. Organization of the blood clot by formation of connective tissue lifts the scar from its base. Patients were followed up at 2-4 week intervals for 6 months for scar improvement and complications. Outcome was assessed by percentage of scar improvement as assessed by the patient, by 2 independent observers and by serial photographic comparisons.

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## Results

Number of treatment sessions each patient underwent is as follows.

Number of patients	Number of treatment sessions
5	2
3	3
2	4
2	5
3	6

Percentage of improvement as reported by the patients.

Percentage improvement	Number of patients
40%	04
40-50%	01
50%	06
50-60%	0
60%	02
60-70%	01
70%	01

These results conformed with observer assessment of % improvement.

Subcision has improved the appearance in all of the patients. At least 40% improvement was seen in all 15 patients. Degree of improvement was 40-70%. Number of treatment sessions varied with each patient. No major side effects were seen except pain, swelling and bruising. One patient developed pigmentation at the sites of subcision.

## Discussion

All patients expressed satisfaction about the procedure. The percentage of improvement was in 40-70% range as assessed by the patients. These results conformed to 2 independent observers' assessment. Percentage of improvement depends on severity of rolling acne scars. Mild lesions required 2-3 sessions and improvement reported was at 60-70%. More severe lesions required 5-6 treatment sessions and improvement was at 40-50%. In other studies maximum improvement reported was 40-80% range. Subcision can cause pain during the procedure and bruising and swelling during the 1st week. One patient developed post inflammatory



Before subcision.



40% improvement after 6 treatment sessions.

hyperpigmentation at subcision sites, which resolved in 3 months.

## Conclusions

Subcision is a simple, non expensive and safe procedure that may provide significant improvement of rolling acne scars. When resolution of acne scars is inadequate, combination of subcision with chemical peeling and other scar revision procedures are beneficial.

## References

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