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Research Article

**MICRONEEDLING FOR THE TREATMENT OF SCARS: AN
UPDATE FOR CLINICIANS**¹Dr. Lubna Zahir, ²Dr. Maryam Sunaina, ³Dr. Umer Jaleel Rana, ⁴Dr. Sana Shabbir¹Pmdc no 18583-N, ²Reg no. 87769-p, ³748967-01-M, ⁴102729-P

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Abstract:**Background:**

Micro needling is a process is spreading day by day in the whole world. Few years ago, these treatments were just using by some specific countries to treat the scars and skin damaging. As the world is progressing and lots of changes are occurring in the world, the process of micro needling also got introduce in the world and the started treatment of scars with the help of micro needling. It helps to lighter up the skin and remove scars from the skin.

Methodology:

This study is about the process of micro needling and its use in the world. By using many processes and technologies, they start using this process to remove scars and lighten up the skin.

Results:

About 58 studies were related to the topic of micro needling and about 1890 patients were included in these studies. They were getting treatments for their acne issues, skin damage and scars. They also treat the skin of patients who got skin damage from smallpox, chickenpox or burn. They use many tests and surgeries to treat scars. Patients show satisfaction with the treatment provided to them. Few of them show negative results as they were facing some difficulties during the treatment and some of them get allergic with it. Doctors should aware them with the procedure of treatment before starting their treatment.

Conclusions:

Micro needling is the process which is used to treat scars. Patients show satisfactory results after the treatment of micro needling. Many hospitals started using this process to treat skin related issues.

Keywords: scars, the micro-needling process, peel off, skin damage.

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INTRODUCTION:

Micro needling is a process which is used to treat issues related to skin [1]. This treatment helps to remove scars, tighten and brighten up the skin and reduce the risk of aging. It also helps to decrease the growth of facial and body hairs. Some people use it as the alternated of some other process specially laser [2]. It has all the qualities related to laser and people feel less pain and less investment in this process. People use needles to make tattoos on their bodies by using ink, by using this technique; they introduce micro needling to treat skin issues [3]. They use several methods and techniques in this process. They use stamps, needles, pens, and many other items to perform this process. Their first and important focus is on the protection of skin. They protect the skin from any type of damage. When they use these processes to treat the skin, they first measure the length of needles, its level of penetration towards the skin and the type of material they are using while making these needles [4]. They measure all these circumstances first and then start treatment. If they will not use separate needling for each patient, it will cause several issues and lots of disease related to the skin will spread. They should use separate needles to treat the patients. By using some devices, they treat the patients by measuring the length and penetration level of needles [5]. The size of the needle and length of penetration is necessary to treat the skin of the body or face. They use the needles with the size from 1mm-3mm in length and penetrate it in the skin with different ranges. This process helps to treat the damage skin of patients and helps to reduce the risk of skin damage [6]. Micro needling helps to treat the minor issues of the skin. It treats all layers of the skin, it helps to tighten up the skin and heal the wound. It helps to treat the development of skin thickness. After the process of micro needling, the skin starts thickens and helps to lighten up the skin. After getting proper treatment of micro needling, it helps to treat the scars present on the skin and after some weeks and months, these scars totally removed from the skin and people get a fair, clean and healthy skin.

METHODOLOGY:

This study is about the use of micro needling in the world and its effects. Several other researchers are also going to perform some tasks related to micro needling. These researches are trying to make a proper study on this topic, and we also use their methodologies in our studies. By using different techniques and methodologies, we can conclude results. The Process of micro needling helps to treat several issues related to skin. Dermatologists try their best to perform this process and help patient to get rid of the issues they were facing from so long time. They treat acne of skin, skin burns, and scars due to different reasons. After getting treatment of weeks and months, people see the clear difference in their skin and the texture and thickness of their skin also improves. They start returning back towards their original skin color. Blood flow in the skin and vessels move back on its previous range. In short, we can say that micro needling is the best option to remove scars from the skin.

RESULTS:

When they start searching on the number of studies related to micro needling, they get lots of results related to this topic. About 59 studies from them were held between the years of 2020-2021. They make a detailed study based on micro needling and conclude results by using several methods. In this study, they study about 1890 patients who were suffering from skin problems. All of these patients were having different issues related to skin as scars, acne, epidermal damage, loss of skin thickness, etc. They face these issues due to different issues, some of them get acne and scars in the results of any skin treatment and some of them face skin issues due to traumas. Dermatologists use several methods on them to treat their skin issues. They do ultrasounds, echo tests and some laser treatment to treat skin issues. But after some time, they introduce the process of micro needling. This process helps lots of people to get treatment of their skin issues and get excellent results.

	Treatment		Therapies	
Micro needling.	Number of patients. Treatment places Depth of the needle.	6-11 Bleeding 1.0-3.0 millimeter	The Procedure base. Peel off. The therapy	The Presence of plasma. Peel with acid. The use of some acids to complete therapy.
	<ul style="list-style-type: none"> • Duration of treatment was 1-9 weeks. 			
Patching of the micro-needle	<ul style="list-style-type: none"> • Performance on the monthly basis or change on a certain condition. 			
The frequency of the penetration of the needle	Number of patients Depth of needles. The Use of energy. Duration of the process	2-9 weeks 0.9- 3.4 mm 60-71W 40-50 minutes	In the form of injection The Therapy	Use of Carbon Dioxide Gas. Use of some acids.

By treating skin issues, they use different types of medications. They use the peel of chemicals, insertion of medicines through injections, laser and many other methods. Before starting the procedure of treatment, they give anesthesia to these patients. It helps to reduce the pain during their treatment. Amount and place of anesthesia was totally dependent on the percentage of issue. Some time they inject anesthesia to the specific part of the body, which will get treated but sometimes they give them full anesthesia in which they cannot feel any pain for 90 minutes. After completing the procedure of anesthesia, they first clean that specific part which will be involved in the treatment. They clean this area with the help of ethyl alcohol. They also take care of less damage to the epidermis. They remove all types of scars with the help of this process. They also ask some questions related to micro needling process as this process is expensive or cheap as compared to the laser. They also ask the time of treatment and its outcomes. Patients were totally satisfied with the treatment of micro needling. Patients

show the positive response towards this study and show that they will come again for this treatment if they will feel any issue related to their skin. Most of them also recommend this treatment to their friend and colleagues. Patients show higher range of satisfaction and they were comfortable during this treatment period. In the process of micro needling, all studies show some common outcomes as patients feel a little amount of pain and bleeding was also seen in their studies. Bleeding occurs due to the cutting of the layer of skin but dermatologists and skin specialists try to less damage the epidermal layer. Overall, the ratio of satisfied patients was good; few of them show less satisfaction. About 6 patients show the scarceness during treatment and one of them face some allergy due to needle, but it was cured after some time. All these tests and treatments were performed in a hospital under the eye of skin specialists and they give their 100% to treat patients suffering from skin issues and were not getting proper treatment related to skin.

Events of description	Number of reported studies
Pre- inflammatory	18
Pigmentation	
Crusting of skin	8
Acne	7
Allergic to needles	5
Epidermal damage	8
Activation reaction	4
Scar	1
Skin damage	2

DISCUSSION:

Treatment with the help of micro needling is going to treat several issues and problems related to skin. People and mainly females suffer most from these issues and were not getting proper treatment. This process helps to treat aging of skin, excessive hair growth on body and face. Some studies show results related to the scarceness of patients related to this treatment [7]. They were scared due to anesthesia and epidermal damage. Most of these patients were easy to tolerate the pain during treatment. They give them several therapies related to their skin issues and start their treatment. In this process, the needles they used should be new and properly sterilized [8]. Many types of treatments and therapies were used to complete this process. They use the measured size of the needle for the micro needling process. First of all, they measure the level of penetration [9]. First, they fix the range of penetration of the needle and then start the procedure. They give them anesthesia and start their treatment. Before the process of needling, people use multiple processes for skin treatment and face lots of difficulties. Few years ago, they introduce them from micro needling to treat all skin related issues with this process and get accurate results. Most people were satisfied with the results but some of them got allergic with this treatment. They also treat their allergies within few hours. Some women face issues of skin damage and scars due to the use of cosmetics and low cast bleaching products of their face. These bleaching products cause severe damage to the skin [10]. Acne and scars start forming on the skin show its huge effects. These scars last for a long time and continuous increase in the damage skin show negative effects. After damage, skin and long lasting scars on the skin, patients visit to the doctors for treatment and therapies. First, they study the level of damage happens to their skin and then they started treatment. Some of them do different types of scanning and ultrasounds to check the level of injury and which type of method they have to use for its treatment. They start using the method of micro needling to treat skin issues. Before the treatment, doctors should guide the patients about the treatment of micro needling and its pain. They should know that this is not that much easy process so they should prepare the patients mentally before treatment. They have seen some limitations in this study and due to these limitations, we are unable to completely analyze this study and show results related to this study.

CONCLUSIONS:

Micro needling is a process which is used to treat the scars on the skin due to abrasion or damage of skin. It occurs due to several reasons. We use all types of

skin issues mainly scar with the help of micro needling. Patients face lots of issues related to skin damage as scars on the skin, acne, dead skin, and the damage of skin layers and darkness of skin. They use micro needling methods to treat the skin and it also help to lighten and brighten up the skin. Tightening of skin also occur with this procedure. Patients feel easy to perform this process but doctors should guide them before the starting of procedure. In this way, they will feel more comfortable during the treatment. Most patients who take sessions of micro needling show the positive response towards this treatment. Some of them face some difficulties during the treatment and some patients got allergic with it. The Overall response related to this treatment of scars and skin issues was good.

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