Treatment Of Self Inflicted Scars With Overgrafting:
Destigmatization

C Baytekin, A Menderes, F Mola, H Fidaner, A Barutcu

Citation
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Abstract
Treatment of self inflicted scars is always a difficult task. These scars are usually on the nondominant forarm and extend as parallel white lines. Patients are stigmatised by the community due to this scars and want to get rid of them. Treatment of these scars is different than routine scar revisions. This will be a destigmatization action.

After request of our patient to transform the scar into another form of scar, we use split thickness excision of the lesion and subsequent grafting of the area with STSG.

Although there is an increase in total scar area and an extra donor site scar, destigmatisation of the patients is achieved.

INTRODUCTION
It is difficult task to face a patient who has self inflicted scars and wants to get rid of it. These scars are usually multiple, parallel, thin hypo pigmented lines of razor blade or knife lacerations. They are usually located on the nondominant forearm. Cigarette burns may accompany these lesions. They differ from suicide gestures, which are usually single and located over the wrist.

Self mutilation is defined as the act of damaging seriously by cutting off or altering an essential part. The skin is usually the essential part.

In the community these scars are seen as a mark of psychopathic behavior and the patients are stigmatized by the community. Especially in professional life these scars do not leave a good impression. The patients want to get rid of these scars which is hardly achieved. The lacerations are multiple in numbers, cover a large area, are already thin and stretch out into deep dermis or subcutaneous tissue.

After request of one of our patients to transform this scar into another form of scar which would be none stigmatized, we deeply abraded all the cicatrized area and overgrafted it with a split thickness skin graft (STSG). This treatment option supplied an acceptable aesthetic appearance of the cicatrized area and destigmatization of the patient but an extra donor side morbidity and increase in total scar area.

Destigmatization of self inflicted scars with overgrafting is done on twelve patients; all were satisfied with the results. Social destigmatization was more important for the patients as extra donor site morbidity or increased total scar area.

CASES
CASE 1
Twenty four year old female, single, teacher in a high school in rural area. Inflicted razor blade scars on non-dominant forearm in adolescent period. It was after an explosive reaction which lasted a few seconds; lesions were sutured in the emergency room the day after. She came to our clinic with the complain of wearing long sleeves and sweatshirts throughout the year, which was difficult especially in summer. She wanted to be able to wear t-shirts and summer clothes.

First we performed local dermaabrasion, they healed well but the parallel hypo pigmented form of the scars remained. She requested to transform the scars into another form, ‘like burn scar’ she said. We performed dermaabrasion to total cicatrized area but the parallel thin scars were still remarkable. (Figure 1) So we decided to overgraft the lesion with STSG obtained from the buttock area.
**Figure 1**
Figure 1: Case 1 after wide dermaabrasion, laceration scars are still remarkable

After application of STSG total scar area was increased and we got another scar in the buttock area. Aesthetically color match between donor and recipient area was not perfect (Figure 2). But our patient was satisfied. 1 year later she asked for an augmentation mamoplasty which showed us her increased body image.

**Figure 2**
Figure 2: Case 1 after overgrafting with STSG from buttock area

**CASE 2**
Twenty eight year old male, married with two children, working in the hospital.

Self inflicted razor blade scars on both arms which were none repaired. After insistence of his family, he requested treatment of the scars. We advised elliptical excision of the scars, but he insisted in transforming the scars into a different form. We performed dermaabrasion and overgrafting with STSG which we obtained from ipsilateral lateral thigh. (Figure 3-4-5)
CASE 3
Sixteen year old boy, student in high school. Multiple self inflicted scars on both forearms and nondominant arm. Scars are inflicted with razor blade, knife and cigarettes in multiple sessions. The patient was under observation of the childhood and adolescent psychiatry department and was consulted by the same department after request of the family. Elliptical excision of some of the lesions and overgrafting of both posterior forearms with STSG was performed.

In the first three months the patient and the family were quite satisfied with the result, after three months they started to complain about hyperemia around the grafts. They were explained that this was normal during wound healing. Our patient is still under observation of the same clinic. (Figure 6,7)

Figure 6
Figure 6: Case 3 preoperative status

Figure 7
Figure 7: Case 3 post operative status

SURGICAL PROCESS
Under local anesthesia and sedation the cicatrized area is outlined and mechanically deeply abraded, adrenaline soaked gouses are applied over the recipient area to obtain homeostasis. Thin STSG are obtained from buttock or thigh. In female patients we prefer the buttock area as donor site. After homeostasis of the recipient area STSG is applied over the area and sutured to the edges without pie-crusting. Pressure dressing in form of tie-over dressing is applied.

One month after the operation epithelial cysts may be seen under the graft, which spontaneously disappears as the hair follicles open to the surface. (Figure 8) Sun block is advised at least for one year and the patient is observed with monthly controls.

Figure 8
Figure 8: Epithelial cysts on grafted area

DISCUSSION
Self inflicted scars are products of self mutilative behavior. It is defined as the act of damaging seriously by cutting off an essential part which is usually the skin 1.

Self mutilative behavior is mostly seen in adolescent age group. In a questionnaire in Turkish high school population, 21.4 % showed self-mutilative behavior 2.

Self-mutilative behaviors are usually seen after an explosive behavior without planning. Aim of the patient is to convert internal (psychological) pain into external (physical) pain 3.

In a short process multiple razor blade cuts are made on the non dominant forearm, the patient cries after the procedure or feels a great satisfaction, shame usually accompanies both moods.

Self mutilative behavior are seen in the history of many cultures like whipping the back with chains or crucifying his self in religious ceremonies or ‘bloody tears’ in funerals in ancient Turkish culture. These acts are seen as rituals which are accepted as normal in the society. Tattoos or piercing
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may also be seen as self mutilative behavior by the families but they are not self inflicted and instead pointing a psychopathic behavior they are usually an adolescent trend.

Levenkron defined the diagnostic criteria for self mutilative behavior as:

- Recurrent cutting or burning of ones skin
- A sense of tension present immediately before the act is committed
- Relaxation and gratification, pleasant feelings and numbness experienced concomitant with physical pain.
- A sense of shame and fear of social stigma causing the individual to attempt to hide the scars, blood and other evidence of the act of self harm

Social stigma is usually not remarkable against religious rituals or in changing intensity in different cultures against piercing or tattoos. Self laceration scars on the forearm however are stigmatized as psychopathic behavior in most of civilized cultures.

Some authors state that self mutilative behavior is increased in young females with childhood trauma and sexual abuse. Levenkron states that self mutilative behavior is in need of professional help and % 90 of the patients responded to the therapy in 1 year.

The patients usually come to the plastic surgery departments to seek a treatment for the scars. In treatment of this scars, doing nothing and telling the patient to wear long sleeves, camouflaging it with make ups, elliptical excision of the lesion in a single or multiple sessions, tissue expansion with subsequent elliptical excision, dermaabrasion, tattoo camouflage or overtattoo, tangential excision of the involved area with reapplication of the excised tissue at 90 degrees, full thickness excision of the involved area and application of a STSG harvested from a remote site are among treatment options. In treatment of suicide gestures, tangential excision of the lesion with subsequent application of STSG is reported as one of the treatment options. None of this treatment options is aesthetically perfect. Camouflage and overtattooing as well as dermaabrasion do not remove the scars so it still stays remarkable. Most of the treatment options increase total scar area and produce extra donor site morbidity.

In the search for an aesthetically acceptable scar which converts she fastidious marks into another form so destigmatizes it, we applied dermaabrasion of the scars with subsequent application of STSG from a remote site. Deep abrasion of the lesions produced a uniform scar which was grafted with a STSG in order to get the same level with neighboring tissue. There was a minimal pigmentary separation between graft and neighboring area and the edges of the graft was framing it. So in two of our patients we performed dermaabrasion to the edges of the graft to fade it into neighboring area. The patients were aesthetically and socially satisfied.

It is under debate if it is aesthetically acceptable to increase total scar area and to produce another scar in the donor area. Some authors stated that the least acceptable aesthetic result will result in the most satisfied patient in properly selected cases. In our small group all of the patients were looking for an acceptable scar which they could explain as a burn or trauma scar, so that they would no longer be stigmatized. They were looking for the most acceptable scar possible so we performed revisions on the grafted area to make it aesthetically more acceptable.

Self inflicted scars should be consulted together with a psychiatrist and surgeon. Treatment of self mutilative behavior should be achieved first followed by surgical therapy of laceration scars on request. We should keep in mind that these are not just scars which we are facing. We are facing with patients who inflicted this scars and with scars which lead to social stigmatization of the patients. The patient may be in need of professional surgical and psychiatric treatment. Surgical therapy of self inflicted scars differs from ordinary scar revisions. It is a destigmatization action and not scar revision. Although aesthetical appearance is still important most important point is conversion of the scars into another form of scar so destigmatization of it.

CORRESPONDENCE TO

Dr. Caghan Baytekin Dokuz Eylul Universitesi Plastik Rekonstrüktif ve Estetik Cerrahi A.D 35340 Inciralti Izmir, TURKEY Tel: +90 232 4123531 Fax: +90 232 2776757 E-mail: baytekin@ipras.net baytekinc@lycos.com

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Author Information

Caghan Baytekin, M.D.
Resident, Department of Plastic and Reconstructive Surgery, Faculty of Medicine, Dokuz Eylul University

Adnan Menderes, M.D.
Associate Professor, Department of Plastic and Reconstructive Surgery, Faculty of Medicine, Dokuz Eylul University

Fahri Mola, M.D.
Resident, Department of Plastic and Reconstructive Surgery, Faculty of Medicine, Dokuz Eylul University

Huray Fidaner, M.D.
Professor, Department of Psychiatry, Faculty of Medicine, Dokuz Eylul University

Ali Barutcu, M.D.
Professor, Department of Plastic and Reconstructive Surgery, Faculty of Medicine, Dokuz Eylul University