CASE REPORT

Self-harm scar revision

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SUMMARY

This report discusses in detail the case of a patient who underwent a scar revision procedure to have her characteristic self-harm scars altered. A detailed insight into the patient's perspective was gained through semistructured interviews conducted at 6 weeks and 6 months postoperatively. The interviews found that an equally if not more conspicuous scar that was distinct from those created from self-harm had a pronounced psychological benefit for the patient. This article calls for more active management of the psychological sequelae of self-harm scars, with the need to facilitate access to surgical treatment in certain cases.

BACKGROUND

Self-harm is defined by current National Institute for Health and Care Excellence guidelines as 'self-poisoning or self-injury, irrespective of the apparent purpose of the act'¹ (eg, suicidal intent) and most commonly involves drug ingestion or self-cutting behaviour. Self-harm has been a growing problem globally over the last few decades. In the UK, it is estimated that there over 200 000 self-harm-related presentations to general hospitals per year.² Importantly, this is likely to encompass only a fraction of cases, as many acts of self-harm never come to the attention of healthcare services.³ Indeed, in a self-report survey in schools in England, 13% of young people aged 15–16 reported having self-harmed at some time in their lives, with 7% having done so in the previous year.⁴ It is most prevalent in young females, with adolescent girls thought to be three times more likely to self-harm than boys⁴ and approximately 60%–70% of self-harming individuals thought to be under 35 years.⁵

Self-cutting is thought to be by far the most common form of self-injury⁴ and often leaves a highly characteristic, permanent scarring pattern that is difficult for individuals to conceal. Having such scars can provoke feelings of considerable shame and guilt and can further propagate feelings of isolation.⁶ The problems provoking the initial acts of self-harm are clearly of paramount importance in helping an individual suffering with self-harm. However, we are keen to address the lasting impact of the scars themselves once the problems provoking the self-harm behaviour have been resolved. Although psychiatric support is available for those actively self-harming, resolving this behaviour might well represent the end of their contact with psychiatric services. Indeed, the 'National Health Service (NHS) choices' website provides patient information for those who are

actively self-harming,⁷ but treatment for those struggling with *past* scars is not widely available.

Brown *et al*⁸ conducted the first documented qualitative exploration into the impact of general scarring on patient's quality of life (QoL).⁸ In semistructured interviews, they revealed that the majority of respondents were unhappy with their scar's appearance, providing a constant reminder of the causative event and provoking perceived stigma because of the easily recognised pattern of cuts. This was found often to have widespread negative consequences on the individuals' communication skills, personal relationships and work life. However, of the 34 individuals in the study, only one subject possessed self-harm scars.

Todd *et al*⁹ described a case series in which six patients with extensive self-harm scars on their forearms received surgical reconstruction to transform the scars into those of an unknown cause.⁹ They report that the original scars were successfully transformed into scars with a more socially and cosmetically acceptable appearance. Yet, to our knowledge, there has not yet been a QoL study looking specifically at the effects of having such a procedure.

We present the case of a 30-year-old female writer who has undergone extensive revision of self-harm scarring on her arms under the care of NP. She was followed up postoperatively by NP and also agreed to have independent meetings at 6 weeks postoperatively and 6 months postoperatively with IJdeVH. On each occasion, a face-to-face interview was conducted specifically avoiding any leading questions and recording patient observations verbatim. The interviews were performed with the full consent of the patient who agreed to details of her case being published, so long as her anonymity was preserved. She was motivated, at least in part, by a desire to increase the information available to patients in a similar position to her own.

Of note, the term 'deliberate self-harm' has been, and often still is, in popular usage. However, in line with the Royal College of Psychiatrists' recommendations,¹⁰ we avoid use of this phrase due to its implicit ascription of blame to the patient. The persistent use of the word 'deliberate' is for the most part habitual; however, it is our contention that it is also reflective of the persistent stigmatisation of self-harm that still permeates the medical community and wider society.

CASE PRESENTATION

The patient presented to the senior author as a self-referral at the age of 30. She presented complaining of visible scars on the volar aspect of

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Figure 1 Self-harm scars on volar aspect of right forearm.

both forearms and on the anteromedial aspect of her left upper arm. She gave a history of self-harm over a period of several months when she was 14 years old. She was left with multiple visible scars at each site running transversely in a parallel fashion creating a very characteristic appearance which is difficult, or impossible, to explain by any other form of injury. The patient had considered a number of non-surgical alternatives to try to remove the scars, for example, laser scar removal, but was deterred by evidence of poor outcomes. She had also tried camouflaging the scars with make up, but this was unsuccessful due to the contour irregularity and propensity to rub off on clothing.

On examination, she had multiple scars at each site ([figure 1](#)). The largest area on the volar aspect of the left forearm measured 25 cm × 5 cm. The patient is a non-smoker and takes fluoxetine for depression.

The possibility of plastic surgical scar revision by elliptical excision of the areas of scarring and direct closure of the wounds to leave longitudinal surgical scars was discussed with her in detail. It was emphasised that the aim of this would be to remove the areas of multiple parallel scars, leaving in their place long surgical scars. It was emphasised that the new scars would inevitably stretch significantly in width and would take 12–18 months to mature fully. During this time, the scars would be likely to be a deep pink colour and likely to become hypertrophic or lumpy before they finally settled. It was emphasised that the new scars would be more conspicuous than the self-harm scars, but would lack the characteristic pattern.

Two preoperative consultations took place at an interval of 3 weeks. At each consultation, the potential risks of the surgery were discussed in detail including bleeding, haematoma, wound

Figure 2 Volar aspect of forearms 4 weeks post-scar revision surgery.

infection, wound dehiscence and breakdown, delayed healing and the need for further surgery. On each occasion, the inevitable permanence of the scarring was emphasised.

The surgery was performed under general anaesthetic. The areas of scarring were carefully marked and full thickness excision of the skin and scarring was performed. Haemostasis was performed using bipolar diathermy. The wounds were then closed directly with 3/0 Vicryl interrupted stitches. The wounds were dressed with Micropore tape, gauze, Velban and a crepe bandage. She made an uneventful postoperative recovery and was discharged home the same day.

The patient returned for a wound check 1 week later and was found to be healing satisfactorily without any evidence of infection. The dressings were fully removed after a period of 2 weeks. At approximately 5 weeks, postoperatively she developed a single stitch abscess in the centre of the healing wound on the left forearm. The abscess was directly associated with one of the dissolving stitches. There was a tiny bead of pus with the underlying buried stitch visible. It was managed by cleaning with normal saline and the application of a light dressing which patient changed herself at intervals of 2–3 day. It healed over a period of 3 weeks. Stitch abscesses of this kind are a fairly common and recognised complication of the healing of wounds closed with multiple buried intradermal absorbable sutures. She was completely free of dressings at all sites by 2 months postoperatively.

She was advised to massage the scars twice daily with a proprietary skin care product containing Purcelline Oil ('Bio-OIL') followed by twice daily application of topical silicone gel ('Kelocote'). The patient was advised to continue this twice daily routine for a period of 6 months to help the fresh scars to settle

Figure 3 Volar aspect of right forearm 4 months post-scar revision surgery.

and mature (figures 2–4). She was last seen 6 months following the surgery when she presented for her follow-up appointment wearing a strappy summer dress and her arms completely

Figure 4 Volar aspect of forearms 4 months post-scar revision surgery.

exposed in a way that she stated that she had been unable to do since her early teenage years.

Semistructured interviews with IJdeVH

The patient was self-harming for a relatively brief period of time when she was 14 years old. She saw this as having been part of a nexus of self-image issues that also manifested in an eating disorder. The self-harm was a socially learnt behaviour, which she had observed at her school: ‘it was something sad people did, and I was very sad’. Having had extensive counselling for these issues in her 20s, she feels her depressive tendencies are now well managed and she is happy and well in herself. However, the characteristic self-harm scars with which she was left have provoked considerable emotional distress in their own right. Despite the psychological turmoil of this time being very much in her past, the scarring provided a constant reminder of this time. She described it as ‘visibly carrying around the lowest point of (her) life’. Intrinsically linked to the negative connotations they evoke, she found the physicality of the scars themselves incredibly ugly and was consequently very ashamed of her arms. In a vicious cycle, this further propagated negative self-image issues and consolidated shame and guilt about her own body.

The patient was incredibly preoccupied with the fear of people seeing her self-harm scars. They represented an isolated and decontextualised relic of her 14-year-old self, to which, as an adult, she no longer wanted to be tied. She felt that they facilitated the automatic judgement of her personality, as if she were ‘branded with a huge neon label flashing “crazy person”’. They also imparted an unwanted feeling of vulnerability, acting as a direct window into highly personal struggles, which she did not want to be freely accessible to strangers. It undermined her sense of control over how she presented herself to others. She was particularly concerned about the scars in her teaching role, feeling a professional responsibility to conceal them from her students. The patient also feared putting other people in an awkward position by displaying them, as if the scars generated ‘unsavoury’ conversations that were incompatible with social ease.

The patient consequently had a strong desire to conceal the scars, which had a tremendous impact on her daily life for the last 16 years. She felt as if she spent such a significant portion of her adult life worrying about a teenage problem that should have been left long behind. She did not own anything with short sleeves and even remembered not taking a job due to the short-sleeved uniform. She regretted having felt too afraid to expose her arms in order to give blood and pretending to be left handed so she could receive injections in her unmarked right upper arm. She developed behavioural idiosyncrasies, such as sitting side-on in conversation to ensure that her forearms can be turned inwards. The psychological impact of such behaviours was also considerable, causing her to feel as if she was constantly hiding this ‘shameful’ aspect of herself.

The patient explored numerous avenues to try and have the scars removed non-surgically, which proved expensive and futile, before deciding on a scar revision procedure at age 30. She was repeatedly cautioned by NP as to the potentially disfiguring effects of having such a procedure and that the ensuing scars would be much more significant than her self-harm scars. However, on 17 March 2016, she had three procedures: one on each forearm and a third on her left upper arm, to remove the scars.

Six weeks after the procedure, the patient said that she still felt incredibly surprised as to the extent of the psychological

impact of the operation, with an unbelievable sense of liberation at no longer having something on her body that she is horribly ashamed of. We talked in depth about what she would say when asked about the scars that have replaced her self-harm scars. Prior to the surgery, it was very rare for people to comment on or ask about the scars, as they were incredibly characteristic of self-harm, which is not typically in the domain of social conversation and normally invites a degree of privacy. However, her new scars look like orthopaedic scars, which I expect people will ask about more freely. The patient still felt nervous about people seeing them and was conscious that they invited a much more visceral response as observers no longer felt the need to censor their reactions, now unaware of the important psychological nature of the injury. Furthermore, having concealed her forearms for such a significant portion of her life, she found the thought of not covering up what has become such a private part of her body both nerve-racking and exciting.

Yet, she was in fact remarkably unconcerned about formulating an answer as to how she acquired her new scars. She wanted to have an answer that would not make other people feel uncomfortable and had told friends that they are scars from 'correcting an old issue'. In fact, she said that people were often far more eager to show their own scars. But perhaps most importantly, she felt that now the self-harm scars are so succinctly and evidently in the past, they no longer carried the same shame and emotional distress. In fact, she thought she would feel quite comfortable to tell people about the procedure that she had, finding liberation in being able to say 'this happened years ago; I'm an adult now; and this is what I have done about it'.

OUTCOME AND FOLLOW-UP

Six months after the operation, IJdeVH met with the patient again to further discuss the impact of the surgery. She talked of the last 6 months since the operation as a very exciting time for her, with the removal of the scars transforming the way in which she viewed herself. She described the removal of the scars as 'like losing the last of her depression'.

She had decided that when people ask her in passing about the scars she would tell them that she 'broke her arm and recently had the scars revised'. Again, her experience has been that people have not pressed the matter and have been much more keen to discuss their own injuries. Importantly, all the occasions on which she has been asked have occurred in situations that she never would have let happen previously, as she was so vigilant at concealing her arms. She recognised the tremendous achievement in that and relished in now wearing short-sleeved T-shirts. But this effect permeated much more deeply into her daily life. She marked her relationship with exercise as being a particularly pivotal change and for the first time she has felt comfortable to undergo personal training—something she 'never could have done before'. She was now using exercise to help her manage her low mood and came off fluoxetine this Summer. In her own words, 'How I dress and exercise, and the kinds of activities I let myself do, like acting and personal training, all feel like subsidiaries of the fact that I don't feel embarrassed about myself anymore'. She mused on the fact that it was difficult to imagine how her cosmetically insignificant self-harm scars tethered her to a set of miseries that were no longer relevant to her, but with them gone she could now 'leave behind her depressed self'.

I asked her if she felt that there were any negatives to having had the operation. Her first reaction was that it was a difficult question, as she felt so overwhelmingly positive about the impact it has had on her life. Looking back, she said she struggled with

the suture abscess, as she had no idea how the healed scars would look. Indeed, due to the novelty of the procedure, she felt she had nowhere to pitch her expectations as to how the scars would turn out, which was anxiety provoking at times. However, she also remembered the bitter disappointment that she had faced prior to pursuing the surgery with NP, with previous physicians promising her 'perfect' results and found his realism and refusal to make definitive predictions reassuring.

The patient reported that she was still slightly conscious that to some people her scars are 'really ugly'. She experienced an incident in which a little girl asked her mother 'why does that lady have lines on her arms', which initially felt jarring, but on reflection nothing compared with how she would have felt if the girl had said exactly the same thing before the operation. Previously, she would have felt that she would have been opening up a whole world to something any small child should be sheltered from. She said that she was still mindful of them, but 'the stakes are so much lower'. In regard to her teaching, she commented, 'I wouldn't show off these scars in a classroom, but if a student noticed them I wouldn't really care. Previously, I would have felt really undermined and nervous about my authority'. This has been very calming for her, having been alleviated from the burden of constantly feeling that she had something to hide.

DISCUSSION

Plastic surgical scar revision encompasses a range of techniques used to improve the quality and appearance of unfavourable scars resulting from trauma or surgery. Scar revision is usually directed towards reducing or minimising scars so as to make them less conspicuous. Plastic surgical scar revision can never eradicate scarring altogether; it invariably results in a new scar which is generally less obvious and more cosmetically acceptable than the original scar.

Scars have the potential to act as a permanent daily reminder of some traumatic past event. When noticed by others, they can elicit a spectrum of reactions ranging from horror and recoil to empathy and also stigmatisation and judgement.

The scars resulting from self-harm are usually confined to the upper limbs and commonly to the non-dominant forearm,¹¹ this being the most accessible part to 'cut'. They can often be covered with long sleeves, but this is incompatible with a wide variety of occupations ranging from the catering industry to nursing and medicine with its necessary 'bare below the elbow' culture. Self-harm has become increasingly recognised and discussed¹² and the scars resulting from it are easily recognised. Patients with self-harm scars often try to keep them covered at all times, which restricts their choice of clothing and activity.¹³ This leaves many seeking treatment to remove the scarring.

In the author's experience, laser treatment of dermal scarring resulting from self-harm is usually disappointing, resulting in laser burn scars in a similar pattern. The option of plastic surgical scar revision involves excision of the existing area of scarring and closure of the wounds resulting in a different type of scarring, which is not suggestive of self-harm injury. When possible, the scarring is excised and the wound closed directly with stitches. With larger areas of scarring, it may be necessary to perform serial excision in two or more stages to completely remove the self-harm scars. Alternatively, a large area of full thickness skin and scar excision can be repaired with a skin graft resulting in an area of scarring resembling a burn injury.

Either of these alternatives represent a paradoxical variation to the usual aim of scar revision surgery, which is to reduce or minimise scarring. The new scarring resulting from revision of self-harm

scars is generally even more conspicuous than the presenting self-harm scarring, but is less recognisable and therefore less stigmatic. The longitudinal scars resulting from direct closure of the wounds generally resemble the sort of longitudinal scarring resulting from an orthopaedic operation following trauma.

Careful and unhurried preoperative counselling forms an essential part of the preoperative management and consent process. The practicalities of the surgery should be discussed in detail together with the material risks and potential complications as well as the alternatives in line with the *Montgomery* versus *Lanarkshire* judgement relating to consent for surgery. The potential complications of the surgery include bleeding, infection, wound breakdown with delayed healing requiring dressings for a period of weeks and final unfavourable, lumpy hypertrophic scarring. The incidence of serious wound healing complications in NP's experience of all scar revision surgery is 2%. The alternatives to surgery are to accept the status quo or concealment with camouflage make up or tattooing. Many patients with self-harm scarring have tried and discarded camouflage make up as it fails to conceal the typical smooth and shiny surface of stretched dermal scars and the stigmatic distribution of multiple parallel lines on the arms. Furthermore, this make up is frequently rubbed off by clothing.

Most patients presenting to NP with self-harm scarring are self-referrals as a result of word of mouth recommendation or internet research regarding a special interest in scarring disfigurement. These patients are often intensely private about their concerns, and consequently, this area of plastic surgery poses a considerable research challenge. It is not an area which can be easily subjected to randomised controlled trials with sham or

alternative treatments. It is an area where prospective, qualitative research may be informative.

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Learning points

- Self-harm scars themselves can remain a source of considerable psychological distress.
- We feel that there is a considerable group of patients who could benefit from surgical options to revise self-harm scars, and the field deserves much closer scrutiny.
- Greater awareness of the problem would encourage presentation to general practitioners and prompt specialist referral where appropriate, thereby helping to address the considerable emotional distress that lasting self-harm scars can cause.

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