

Use of Plastic Surgery in Physical Trauma Victims: Impact on Pain and Emotional Recovery

Uso de Cirurgia Plástica em Vítimas de Trauma Físico: Impacto na Dor e na Recuperação Emocional

Uso de la Cirugía Plástica en Víctimas de Traumatismos Físicos: Impacto en el Dolor y la Recuperación Emocional

RESUMO

O trauma físico representa um importante desafio em saúde pública, gerando não apenas lesões corporais imediatas, mas também repercussões funcionais, dolorosas e emocionais de longo prazo. A cirurgia plástica reconstrutiva, nesse contexto, desempenha papel fundamental ao restabelecer a integridade anatômica, reduzir a dor e promover reintegração social e psicológica. Este artigo discute os impactos da cirurgia plástica em vítimas de trauma, abordando sua contribuição para o controle da dor crônica, a melhora da qualidade de vida e a recuperação emocional. Destaca-se ainda a importância de uma abordagem multidisciplinar, unindo cirurgiões, médicos da dor, fisioterapeutas, nutricionistas e psicólogos, a fim de garantir uma reabilitação integral. Conclui-se que a cirurgia plástica transcende a dimensão estética, configurando-se como recurso terapêutico indispensável na reconstrução da saúde física e emocional de pacientes traumatizados.

DESCRITORES: Cirurgia Plástica; Traumatismos Físicos; Dor Crônica; Reabilitação; Saúde Mental.

ABSTRACT

Physical trauma represents a major public health challenge, leading not only to immediate bodily injuries but also to long-term functional, painful, and emotional consequences. Reconstructive plastic surgery plays a key role in this scenario by restoring anatomical integrity, reducing pain, and promoting social and psychological reintegration. This article discusses the impact of plastic surgery on trauma victims, highlighting its contribution to chronic pain management, quality of life improvement, and emotional recovery. The importance of a multidisciplinary approach is also emphasized, involving plastic surgeons, pain specialists, physiotherapists, nutritionists, and psychologists, to ensure comprehensive rehabilitation. It is concluded that plastic surgery transcends the aesthetic dimension, representing an essential therapeutic resource in the reconstruction of both physical and emotional health of trauma patients.

DESCRIPTORS: Plastic Surgery; Physical Trauma; Chronic Pain; Rehabilitation; Mental Health.

RESUMEN

Los traumatismos físicos representan un importante reto para la salud pública, ya que no solo causan lesiones corporales inmediatas, sino también repercusiones funcionales, dolorosas y emocionales a largo plazo. En este contexto, la cirugía plástica reconstructiva desempeña un papel fundamental en la restauración de la integridad anatómica, la reducción del dolor y la promoción de la reintegración social y psicológica. Este artículo analiza el impacto de la cirugía plástica en las víctimas de traumatismos, abordando su contribución al control del dolor crónico, la mejora de la calidad de vida y la recuperación emocional. También destaca la importancia de un enfoque multidisciplinar, que reúne a cirujanos, especialistas en dolor, fisioterapeutas, nutricionistas y psicólogos para garantizar una rehabilitación integral. Concluye que la cirugía plástica trasciende la dimensión estética y constituye un recurso terapéutico indispensable en la reconstrucción de la salud física y emocional de los pacientes traumatizados.

DESCRIPTORES: Cirugía plástica; Traumatismo físico; Dolor crónico; Rehabilitación; Salud mental.

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INTRODUCTION

Physical trauma is one of the leading causes of morbidity and mortality worldwide, producing not only immediate anatomical injuries, but also long-term functional sequelae and emotional repercussions. Car accidents, burns, gunshot wounds, and falls are among the most

common situations that cause visible deformities and painful scars. These consequences go beyond the biological realm, interfering with daily life, professional life, social relationships, and psychological balance. In this scenario, plastic surgery plays an essential role, combining aesthetic and functional principles. Its goal is not limited to correcting external defor-

mities: it is a tool for overall rehabilitation, capable of restoring motor functions, reducing pain, and helping to rebuild the patient's identity and self-esteem.

OBJECTIVE

This study aims to analyze the role of reconstructive plastic surgery in

victims of physical trauma, highlighting its influence on pain reduction and the emotional recovery process. It seeks to understand how surgical interventions contribute to functional restoration, improved self-esteem, and social reintegration, in addition to discussing the importance of a multidisciplinary approach in the comprehensive rehabilitation process.

METHODOLOGY

This is a narrative review of the literature, based on scientific articles available in the SciELO, LILACS, and Web of Science databases, as well as international journals indexed in PubMed. Health Sciences Descriptors (DeCS) were used: *Plastic Surgery, Physical Trauma, Chronic Pain, Rehabilitation, and Mental Health*.

The inclusion criteria covered articles published between 2000 and 2025, in Portuguese, English, and Spanish, that addressed the impact of reconstructive plastic surgery on victims of physical trauma, considering both physical aspects (pain, function, complications) and emotional aspects (self-esteem, quality of life, social reintegration). Studies exclusively related to elective cosmetic surgery were excluded.

After initial screening, 20 articles were selected that met the criteria of relevance, methodological quality, and suitability to the proposed theme.

RESULTS

Analysis of the selected studies showed that reconstructive plastic surgery has a positive impact on multiple dimensions of the recovery process for victims of physical trauma:

1. Pain control: several studies pointed to a significant reduction in chronic pain after reconstructive interventions, especially in patients with retractile scars and extensive

burns.

2. Functional improvement: the correction of deformities allowed for greater mobility, early rehabilitation, and reintegration into daily life activities.

3. Emotional recovery: studies have highlighted improved self-esteem, reduced symptoms of depression and anxiety, and greater willingness to reintegrate socially and professionally.

4. Multidisciplinary impact: the literature reinforced that the best results were observed when plastic surgery was associated with psychological follow-up, physical therapy, and pain management.

Overall, the findings show that plastic surgery transcends its aesthetic role, becoming an indispensable therapeutic resource for the comprehensive rehabilitation of victims of physical trauma.

DISCUSSION

Reconstructive plastic surgery performed on victims of physical trauma represents much more than a cosmetic procedure; it is a therapeutic strategy that integrates functional recovery, pain reduction, and emotional rehabilitation. The studies analyzed reinforce that pain, especially when chronic, is one of the greatest barriers to the patient's full reintegration into everyday life. In situations of extensive burns or retractile scars, for example, tissue release and reconstruction with well-vascularized flaps have been shown to relieve muscle tension and nerve compression, significantly reducing pain intensity and improving mobility. This relief has a direct impact on adherence to the other stages of treatment, favoring physical therapy, professional reintegration, and the resumption of social activities.

Another aspect widely discussed in the literature is the psychologi-

cal impact associated with trauma. Changes in body image often trigger depression, anxiety, and post-traumatic stress disorder, with repercussions on self-esteem and interpersonal relationships. In this context, plastic surgery, by restoring appearance and giving patients back the possibility of recognizing themselves in their own bodies, also acts as a resource for rebuilding emotional identity. Improved self-image is directly related to strengthened self-esteem and reduced psychosocial symptoms, showing that the rehabilitation process goes beyond physical limits and extends to the subjective sphere.

Analysis of the evidence also reveals that the best outcomes are achieved when plastic surgery is part of a multidisciplinary approach. The joint work of surgeons, pain specialists, psychologists, physical therapists, and nutritionists provides a comprehensive view of the patient, considering not only the correction of traumatic sequelae but also the prevention of complications, emotional support, and optimization of the healing process. Thus, it is observed that full rehabilitation occurs when the body and mind are treated in an integrated and continuous manner.

However, significant challenges remain. Barriers such as limited access to public health systems, the high cost of reconstructive technologies, and the need for specialized teams still restrict the universalization of these benefits. On the other hand, advances in tissue bioengineering, the use of 3D printers, and the application of stem cells present promising alternatives for expanding therapeutic possibilities in the coming years.

Therefore, the discussion highlights that reconstructive plastic surgery is an indispensable resource in the care of victims of physical trauma. By reducing pain, restoring function, and promoting social and emotional

reintegration, it consolidates itself as a central element of global rehabilitation, reaffirming medicine's commitment not only to biological healing but also to the dignity and quality of life of patients.

CONCLUSION

Reconstructive plastic surgery in victims of physical trauma should be understood as an essential therapeutic tool for comprehensive rehabilitation, since it acts simultaneously on functional restoration, pain relief, and the patient's emotional reconstruction. The findings of the analyzed literature confirm that well-indicated and well-conducted interventions

are capable of reducing painful contractures, improving mobility, and enabling individuals to resume their daily activities, also promoting their social and professional reintegration.

More than correcting visible deformities, plastic surgery contributes to restoring the patient's identity and self-esteem, minimizing psychological impacts such as depression, anxiety, and isolation. Thus, it consolidates itself not only as an aesthetic resource but also as a fundamental link between reconstructive medicine and the promotion of mental health.

However, the full success of this practice depends on a multidisciplinary approach involving pain specialists, physical therapists, psychol-

ogists, nutritionists, and other health professionals, as well as public policies that guarantee equitable access to reconstructive procedures. Technological advances—such as the use of 3D printers, biomaterials, and cell therapies—broaden future prospects but still require investment and integration with clinical reality.

Therefore, it can be concluded that plastic surgery in victims of physical trauma transcends the biological dimension of repair, representing an act of human reintegration. By restoring dignity, autonomy, and hope, it reaffirms the greater function of medicine: not only to heal wounds, but to rebuild lives.

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