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CONSIDERATIONS REGARDING THE PSYCHOLOGICAL EFFECT OF FACE TRANSPLANT

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SUMMARY:

The field of organ transplant has progressed very rapidly since its beginnings, reaching a level of performance that nobody would have dreamt of a few decades ago. Face transplant, which allows the beneficiary to get a new physical appearance, is one of the results of this progress.

The medical success of the face transplant left behind the ethical, social, and psychological problems that could have arisen because of the major change of the face, which is the most important marker of human individualization. This change could lead to an identity crisis due to the disjunction between the interior self-consisting of feelings, thoughts, mechanism of thinking, etc. and the external self that should reflect these interior determinants. This disruption can lead to psychiatric and psychological disorders caused by the loss of identity that can take different forms in accordance with the personality of the patient. Therefore, a very careful selection of the patients is necessary before the face transplantation, based on both medical and psychological criteria.

The key factors for the psychological acceptance of the transplanted face are trying to predict the transplant beneficiary's reaction to the radical change of his/her facial aspect and his/her ability to modulate and control it.

Keywords: face transplant, identity, psychological impact

REZUMAT:

Domeniul transplantului de organe a cunoscut un progres foarte rapid, ajungând la un nivel de performanță la care nimeni nu ar fi visat în urmă cu câteva decenii. Transplantul de față, prin care primitorul capătă, practic, un nou chip, reprezintă unul dintre rezultatele acestui progres.

Succesul medical al acestor intervenții a lăsat însă în umbră problemele de natură etică, socială, psihologică ce pot apărea ca urmare a modificării majore a aspectului facial care este cel mai important marker de individualizare umană.

Aceste modificări pot duce la o criză de identitate datorită disjunției dintre eul interior, determinat de sentimente, gândire, amintiri și cel exterior, străin, care ar trebui să reflecte aceste trăiri interioare. Această sciziune poate determina tulburări psihice determinate de pierderea identității care pot lua diferite forme în funcție de personalitatea pacientului. De aceea, este necesară o selecție atentă a celor care trebuie să beneficieze de un transplant facial, bazată atât pe criterii medicale, cât și psihologice.

Cuvinte-cheie: transplant de față, identitate, impact psihologic

INTRODUCTION

The performance of the first organ transplants (1954 – the first kidney transplant and 1967 – the first heart transplant) revolutionized the medicine, offering, thus, a new solution to the patients who had no hope of a normal life or long term survival.

Gradually, the development of medical technology led to an improvement in this field of activity and to the achievement of transplant interventions that no one could have dreamt of a few decades ago.

The present transplant consists of harvesting all the tissues that make the massive facial *in corpore* (skin, muscles, and bones) from a dead patient, together with the blood vessels and the nerves essential to this structure. Everything is to be transplanted to a patient who is severely disfigured and unable to be submitted to plastic reparatory surgery. The transplant can be partial, dealing with just a section of the face or total, dealing with the transfer of an entire face from a deceased donor.

The facial transplant actually gives the patient a new face, which involves getting all anatomic structures from the donor, even his features, unlike the cases of aesthetic surgery, where, no matter the amplitude, the facial material of the patient is kept and only partially modified.

SHORT HISTORY OF FACIAL TRANSPLANT

The first transplant ever to have been performed was registered in France, in 2005, and was a tremendous success, medically speaking. The beneficiary of this revolutionary medical case was Isabelle Dinoire, who had been disfigured by her dog. In order to save her life, the doctors decided to give her a new mouth, nose and chin, by almost a complete face transplant. However, they never revealed the identity of the donor, even if the face had belonged to a suicidal subject, according to *The Times*. [2, 12]

The first one to receive a face transplant in the USA was Dallas Wiens, disfigured in 2008 when he got electrocuted while painting a church. The patient survived, but the doctors were forced to keep him in a state of induced coma for three months, in order to help cure his wounds. Wiens lost his sight and almost all his facial features, because of the burns. Despite the apparent gravity of his situation-he seemed condemned to a life of mutilation-a team of surgeons decided to reconstruct his face using tissues from a donor in a state of cerebral death. According to his doctors, Dallas Wiens can now talk and feel smell, but will not recover his sight [9].

The first total face transplant to be performed in Europe came five years after the first partial face transplant and it was done by a team of Spanish surgeons. The patient was a 30-year old farmer who had been severely disfigured, after being accidentally shot five years before. His mouth and nose were completely destroyed, he could not breathe on his own, neither could he eat nor speak normally. During the intervention that lasted over 20 hours, the patient's face was completely rebuilt by total transplant of skin, muscles, nose, lips, upper jaw, teeth, palate, cheeks and mandible. [15]

These cases, landmarks in the field of face transplant, were the first in a long series; in all situations, the facial structures came from deceased donors.

The medical success of these interventions put aside the issues seen from an ethical, social, psychological and psychiatric point of view, issues that might come up as a consequence of altering the patients' perception of themselves.

THE PSYCHOLOGICAL IMPACT OF THE TRANSPLANTS ON THE PATIENTS

Personal identity was defined from two perspectives: physical continuity (same body, same brain) and psychological continuity (same memories, same character). J. Locke asserts that the latter is the necessary one, considering memory and consciousness to be definitive for people, whereas Bernard Williams asserts that the former is the necessary condition for identity. [14]

The body is the interface that gives the man a perception of the physical world. Dolto said that the image of the body is a synthesis of interpersonal emotional experience, experience through which we establish contact with the others. The body offers a support for the individual's relationships with the world and thus, it becomes an epiphenomenon of subjectivity, giving identity and leading to an imminently dependent relationship between the concept of the body and that of the person. [7]

The perception of the body can have a positive value, given by its image, but also a negative one, given by the shame and embarrassment generated by physical deformity, which turns the body into frontier that encloses a subjective reality.

The face is the most important marker of individuality. It expresses the individual's own universe and it makes the connection with those around, going beyond appearance. The face is the most individualized and unique part of the body, the "cypher of the person" according to anthropologists. The face is the primary destination of looking, a sort of geometrical locus of acquaintance and the origin of interpersonal relationships, as well as the contribution in such relations and last, but not least, it is a reflection of emotional dysfunctions [5].

Together with language, face expression plays an important role in social integration and in building harmonious social relationships. The face is the key to understanding emotion and at the same time, emotion is the key to understanding the human face [4].

Some researchers, such as G. Murphy and C. H. Colley, consider the image of the self to be one of the most important influences on perception and thus, on the individual's behaviour [6]. The concept of one's *self* is the centre of their universe, their frame of reference and personal reality, as well as dominant position. It is the screen through one sees, hears, judges and understands everything. It is one's own filter meant to select what to be taken in and what to be transmitted to the world outside [1, 10].

Physiognomy is dictated by the shape particularities and the anatomical structures. Each individual is unique due to the association of various features and their mosaic-like arrangement. An individual's face expression and degree of expressiveness depend on his anatomical structure, beginning with the skin and ending with the bone structure. Beyond the general ethnic features, there is the individual variation, which also determines the expression and success differences of non-verbal communication.

Seen as style and originality, face expression is specific to each individual's personality, given that his face offers a glimpse of his inner self, through feelings, emotions, and character.

The most expressive area of the face is its middle level, the region between the eyes and the eyebrows, where their movement and wrinkling plays a major role in expressing feelings, along with the change in size of the eyelids and the movement of the areas corresponding to the nose, lips and chin.

Modifying the facial aspect would trigger a disjunction between keeping the inner self defined by feelings, thoughts, memories and the outside self, a stranger who should reflect all these interior landmarks. Even slight or unavoidable modifications, such as those caused by aging, are likely to be seen inadequately and disproportionate, if compared to reality.

The major change of facial aspect determines an identity crisis not just by the perception of the self, but also by that of the others. This change reflects itself on the individual's identity by means of a double mechanism: the direct one, of not recognizing one's own image, of confronting unknown mimics and expression, and the indirect one, of perceiving the attitude of those who see him as a stranger.

By receiving a new face, the patient actually gets a third identity he has to fill, in becoming its prisoner.

Those who benefit from face transplants are people with severe mutilation that changed their appearance and threw them in the sphere of the grotesque, where sometimes even the basic human

features lack. In such cases, the face transplant apparently rises as the optimum solution that makes the loss of identity look as an easily acceptable, secondary consequence. Nevertheless, physical recovery is not always accompanied by psychological acceptance of the new exterior look, thus, the reactions of the face transplant patients vary from rejection to full satisfaction.

Regardless of the type of organ transplanted, psychological rejection may come up, as well as that of the organ as one's own, leading to perceiving it as a foreign body. All the more so, this feeling might culminate in the case of a face transplant, where the target area is one seen as the expression of personal identity and uniqueness. The echo of body changes is tightly connected to its mental representation and its image, which now contradict the new reality. This discrepancy is the starting point in reaching identity disorders, going all the way to alienation, also emphasized by the comments of those around. The patient might experience difficulties in adjusting to the newness, which would then keep him from enjoying the peace that identity normally offers. Naturally, there will be differences and asymmetries between the way the patient sees and what he really is. [1, 7]

In the case of the face transplant, the main moral issue is not that related to respecting the ethics rules valid in the situations of other types of transplant, but that related to the way of thinking and the biological identity of the subject. The very legitimacy of the transplant is questioned when the quality of life and personal identity are strongly compromised and when the result of the transplant threatens and deeply disturbs the patient. [11]

New treatment methods, especially in desperate cases, originally trigger a dose of enthusiasm that places benefits under the spot light and overshadows potential risks. Although face transplant is the solution that brings salvation for the recovery of the severely affected patient, the decision of performing it rely on a careful and realistic risks – benefits balance, taking into account all medical aspects, as well as ethical, psychological ones and so on [13]. The psychological risks of such a procedure are hard to foresee and sometimes hard to understand. As in the case of facial deformities, some may adapt to the presence of mutilating sequelae, while others overreact for just a few small changes.

When the patient consents to the face transplant, he cannot consider potential psychological reactions determined by the loss of identity on account of the fact that he cannot foresee them in all depth. Informed consent refers to accepting or not medical risks. The psychological or social ones cannot be estimated or explained, as they depend on each individual's perception and emotional reactions [8].

Psychological disorders brought by loss of identity may have different manifestations, according to the psychological profile of the patient. The subject might be excessively sensitive to himself and the others, emotionally frail, vulnerable to stress or in constant conflict with himself and the surrounding world. This is the individual that experiences life as a temporary phase, painfully waiting and stress accumulating, even reaching psychotic exhaustion when changing his aspect is seen as an infirmity to be ashamed of. Also, losing touch of reality may come up as a fundamental disorder, incapacity of the mind to grasp reality, to accept it and to be aware of it. Practically, what it is lost is the possibility to deliberately act and to adapt to concrete situations, in favour of phobias and automatic, obsessive activities. Anxiety is a common symptom, consequence of multiple cause stress: reactivation of posttraumatic stress syndrome, difficulties of integrating in the family, fear of rejection and so on. All these may lead to a manifest depressive syndrome and may be "fed", along the sensation of faction, by the late, gradual recovery of sensations and movement of the transplant area. Thus the patient feels imprisoned behind a mask that does not belong to him [3].

Another feeling patients experience is guilt and responsibility towards the family of the donor. On the other hand, the fact of actually wearing a part originating in a dead body may create disgust in the patient, both towards the transplant fragment and the entire body that holds it, the more so as the part harvested from the dead body is now placed in a visible spot such as the face.

The rejection of the transplant face may lead to psychological consequences hard to estimate. In the case of other organs transplants, this rejection might take the patient back to where he was before the procedure. In this case, however, the patient is in the situation of having no face whatsoever, thus unlikely to go back- no matter how unfavourable his state may have been- and forced to undergo a new transplant (if, of course, he has the "fortune" of finding a new donor.)

If, speaking from an organic point of view, the rejection of the transplant could be avoided by means of administering immunosuppressive treatments, what is there to be done in the case of psychological rejection of the new face? The answer to this question is far from simple, being actually one of the main issues that may leave negative marks on the post-transplant evolution.

A first step in preventing this situation might be a session of pre-transplant psychological counselling meant to assess the mental state of the patient, for those in need of a face transplant, who have suffered from severe trauma that most likely left considerable disfiguring sequelae. Many may have already undergone surgery in order to feed or breathe on their own. It is thus important to note the psychological consequences of all these events: the presence of the post-traumatic stress syndrome, depression and so on. Also, there must be assessed the patient's degree of accommodation to the mutilating situation created by the trauma, as well as his expectations related to the transplant, and acceptance of a possible failure.

Following the procedure, it is demanding to monitor the psychological state as well as to use certain specific techniques in order to facilitate the integration of the new aspect in the general perception of the self. Counselling offered by those who had found themselves in a similar situation might have a strong effect on the more recent patients (this was what one of the recovered patients had set her mind to do).

CONCLUSIONS

Generally, accepting body parts from another person may be difficult. Despite the fact that, medically, the transplant is recorded as a success, psychological rejection may appear, together with rejecting the transplant organ and seeing it as foreign. Furthermore, these feelings become stronger in the case of a face transplant, area considered to be the expression of personal identity and uniqueness. Accepting another face, especially coming from a dead body, may trigger a conflict of identity, an interior breach supported by the acceptance and recognition of the new face by those around the patient.

In this context, psychological counselling must play a central part, during the preparations prior to the transplant, but also after, when the patients need to be monitored. The attempt to anticipate the patient's reaction to the new look and the ability to control it are the key to psychological acceptance of the face transplant.

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