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PSYCHOLOGICAL ASPECTS OF LIVING DONOR KIDNEY TRANSPLANTATION

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Summary. Deciding between the dialysis and kidney transplantation is very delicate and requires multi-phase discussions with the patient and his family. Transplantation carries along numerous psychological implications affecting both, the kidney donor and the kidney recipient. The attitude towards transplantation differ in relation to the age, education level and character features of the patient. The starting of the transplantation procedure is paradoxically both complicated and facilitated but the fact that there is always a medical alternative in the form of hemodialysis. The psychological adaptation of the donor and the recipient to transplantation occasionally actualizes intrapsychological conflicts, which should be studied and recognized in time. Considering the significant psycho-sociological implications in all its stages, the method of transplantation soon indicates the need for a psychiatrist as a member of a multi-disciplinary team.

Key words: Transplantation, hemodialysis, donor, recipient, intrapsychological conflict

Introduction

Kidney transplantation is a new form of medical treatment, which carries along numerous psychological implications both in the kidney donor and the kidney recipient. The psychological adaptation of the donor and the recipient to transplantation occasionally actualizes intrapsychological conflicts, which should be studied and recognized in time, having in mind their significance in the pre- and post- transplantation procedure (1).

Deciding between the dialysis and transplantation is very delicate and requires multidisciplinary competence and multi-phase discussions with the patient and his family. The starting of the transplantation procedure is, paradoxically, both complicated and facilitated by the fact that there is always a medical alternative in the form of hemodialysis (2). The attitude towards transplantation, the freshness of the ideal and the struggle for it differ in relation to age, education level and character features of patients.

Most often, patients consider the transplantation option in the terminal stage of chronic renal failure immediately after the onset of the hemodialysis or after the worsening of the disease (3). As the disease becomes chronic, the patients become apathic, indifferent or well adapted to the hemodialysis and gradually lose the initial enthusiasm and the wish to have the kidney transplanted.

The choice of the donor

After the decision has been made to accept transplantation as the basic therapeutic treatment, the choice of the donor is the crucial link in the whole procedure.

The transplantation surgeon is obliged to inform a potential donor about all the facts related to transplantation, objectively pointing to possible problems and complications. In that context any kind of persuasion or any other kind of forcing a potential donor is inadmissible. A delicate and professional attitude towards the future event is the main precondition for the act of sacrificing one's organ to be a fully conscious and responsible act on the part of the donor. With ethical relationships being established in this way, there arises both the need and the adequate atmosphere for a constructive psychiatric involvement (4).

The first and the most difficult task for the psychiatrist is to answer the question about the character of the motivation of the potential immuno-compatible donor, which creates a preventive space for inadequate psychological and psychopathological reactions of the donor, the recipient, and the family in case the transplantation fails. In order to carry out the whole transplantation process successfully, it is necessary at the very beginning to make it absolutely clear why someone sacrifices one's vital parenhymal organ, exposing oneself to a complex diagnostic procedure and the operation risks: is it a conscious altruistic act, or is it realized at the dictation of unconscious motives, is the kidney donation determined by outer circumstances, and the donor is

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only the direct realization medium? The answers to these questions require the insight into the psychological profile of both the donor and the recipient, their emotional ties or the existence of another kind of a relationship, their position in the family and the basic characteristics of family relationships and the authority figures in the family. Family customs and value systems are incorporated into the socioeconomic and sociocultural characteristics of the environment that the family comes from and, depending on the specificities of the culture and tradition, the attitudes towards donating an organ while the donor is still alive will be different (5).

The preparation for and the realization of a transplantation procedure is regularly accompanied by emotional tension, which like water ripples spreads to all the participants in the process (the donor, the recipient, the family, the environment), and depending on the characterstics of the different stages in the procedure, is manifested in several ways. Transformations of emotive relations going on during the transplantation procedure are caused by the unforeseeble dynamics of the existing relationships and they cannot be diagnosed by means of classic protocols.

A strucrural and standardized psychological interview is diffucult to apply to complex interactions of all the factors of the transplantation procedure and such an interview should be substituted with a spontaneous and patient creating of a sincere atmosphere through numerous dialogues with the recipient, the donor, and some family members (6).

To understand the newly-established relationship in the family milieu it is necessary to know its internal dynamics, "psychological marking" of the family authority and the model of its functioning. The members of the patient's family are in a specific anxious state, burdened with dilemmas and frustrations, which are constituted both at the conscious and unconscious level and are manifested by various behaviors. The felling of guilt, being pathetic, pretentiousness in moral responsibility, aggressiveness, verbal and motor hyperactivity, are all constantly following one another. Inside the family the conflicts are very frequent, which emphasize the imbalance between the voluntariness and the rational agreement, which, by means of "general life criteria", picks out the candidate. The altruism of the potential donor is a priori taken for granted, without a deeper analysis of the inner unconscious impulses that stimulate him to voluntarily donate the organ or de-stimulate him from it. It is very seldom that all the family members have the "donation motivation", so the participation in the family preparation is to a large extend the result of the fear of being rejected by the family, accompanied by the overt hope that he will not be chosen to be the donor. The family member who is not motivated is easily recognized by his confused behavior, over-exaggeration of his non-existent or minimal health problems, unduly glorification of the patient (reactive formation), or by expressing an over-emphasized pessimistic attitude towards the current situation. In practice there were cases of sudden and unexpected pregnancies of potential female donors, the actualization of the "forgotten health problems" or finding out reasons for sudden trips, which serves as 'justified reasons' to avoid the family pressure. A particular sign of de-motivation is also an emphasized manipulation of mutual family relationships, the activating of old unsettled family accounts, the creation of "family coalitions" and, consequently, of the atmosphere of insecurity, lack of trust and transfer of responsibility.

It is seldom that we can talk about the so-called "pure motivation" of the voluntary donation of a kidney and in most cases there is a combination of motives and impulses (7).

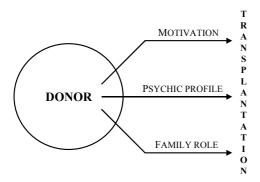
The donors are very rarely ready to express their doubts and intimate feelings. Shame, non-assertiveness, the sense of guilt, can completely overwhelm the donor and bring him/her into the position of speaking one thing and doing another. Most donors tend to make the decision about donating an organ impulsively, without rational consideration, under the influence of a strong affect, often even without getting any preliminary knowledge about the finesses of the procedure. "Moralistic and altruistic attitudes" of this kind of donation are often verbalized and serve as a mask for unconscious needs and wishes.

The donor's motivational activity is urged by many stimuli and in practice it is presented in various ways. In certain cases the decision to help by donating a kidney is the expression of an authentic and profound emotional ties with the patient, and as such, is considered by the donor so natural that any motivational inquiries are redundant. Such "intensive motivation" in which the recipient is simply forced to accept the transplant, "emotionally strips" the donor to an extreme extent and takes away from him "emotional reserves". In the case of the unfavorable outcome of transplantation, such an attitude can lead to an emotional antithesis, which in the donor is manifested through rejection of one's personality, a depressive or paranoid reaction. Mother-donors, for instance, are often motivated by the desire for the transplantation to be a symbolic "re-birth" of the child as a healthy person. With a successful transplantation they in this way get rid of the subconscious sense of guilt for having born a "defective child".

People who have lost self-respect or are in various ways alienated in society are often ready to be donors, looking for their lost psychological security through this act. The basic motivation for kidney donation is the enhancing of a personal image and the "return of self-confidence". In family relationships they draw attention to themselves in order to secure the desired place in the family and, in a wider context, to give meaning and relevance one's own existence. As a rule here we deal with lonely people (a middle-aged single brother, a divorced or single sister) who are left of neglected by the family. With the donation act and their sacrifice thy get the desired respect, but in time the importance of their act "gets diluted", the attention gets reduced and the ad-

miration wanes, which leads to a new deep disappointment, in which root there lies an embitterment because of the inadequate recognition of the greatness of their sacrifice.

Healthy family members can be motivated to donate the kidney by the subconscious sense of guilt, because they themselves are healthy. There have been cases of a family member exaggeratedly fighting for the donor status and in this way compensates earlier negligence and sins in relation to the family or the recipient. There have also been reversed roles in situations where the recipient (the family member with the irreversible renal failure) takes an active role in animating the family towards selecting the member who will donated the kidney and thereby he very persistently and skillfully manipulates the psychological characteristics of the family members and their family roles. In his intention, as a rule, he chooses highly emotional, suggestible persons, lacking self-reliance, prone to be influenced by the others and manipulated. The other level of the active role of the recipient deals with the indirect agreement or a classically legally established deal in which the act of kidney donation is regulated with a substantial material compensation to the donor (8).



Psychological relationship between the donor and the recipient

In transplanting the kidney from a live donor, there is an act of a voluntary sacrifice of a healthy organ in order than someone else (the recipient, whose kidney function has been irreversibly damaged) could be healthy again. In the background of strictly medical implications of this altruistic act, in all its stages (preparation, realization and the post-operational course) there develops a specific emotional atmosphere, which enhances unfamiliar models of behavior of the surrounding, and especially of the recipient and the donor.

The transplantation act establishes a very intimate and delicate relationship between the donor and the recipient, in which the transplanted organ becomes the symbol of a close and specific bond. In its development and maintenance there exists a mutual psychological investment (9).

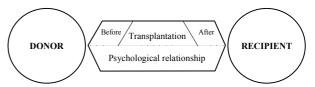
The recipient in this case feels like a debtor, burdened with fluid feelings of guilt and it is difficult for him to rejects any demand from the donor. For him it is sometimes very difficult to distinguish the donated kid-

ney from the family member who donated it and it is difficult for him to integrate it in the comprehension of his own body. The evolution of the relationship is determined by the graft's fate and the psychological capacities of both the participants to perceive realistically the dynamics of their relationship, to recognize their expectations and frustrations and express it verbally in a tolerant discussion. In this context there is also a thesis about the existence of a direct connection between the quality of the emotion that evolutionally binds the recipient and the donor and the somatic manifestations of the acceptance or rejection of the transplant. An exaggerated sense of dept and obligation at the recipient's part, and the donor's need of an emotional ownership and his gift can change the quality of the relationship and create a hostile dependence. The phenomenon that after a successful operation the donor's reputation in the family gets reduced and the attention is transferred to the recipient stresses the sense of being rejected and can be the introduction to depression or hatred towards the recipient. In such situations it is extremely important for the development of a healthy communication to verbalize mutual feelings, which can be masked by stereotypical expressions and the need to stress one's altruism artificially at the broader social level (10).

The direct post-operational rejection can bring about a strong embitterment in the donor. The rejection of the organ can be interpreted by the donor as the rejection of his own self by the recipient, a betrayal, and the "insufficient respect of his sacrifice". The donor's angry reaction can only enforce the recipient's sense of guilt and strengthen the mutual depressiveness. In that sense, there have been records about fantasies of the recipient of the non-functional kidney in which he appears in the role of a robber.

In the cases of receiving the kidney form a person of the opposite sex, men show greater fear for the functioning of the future graft, which is explained by surgical manipulations in the urogenital sphere. For persons who have problems regarding their sex identity or are in adolescence, the period of formation of a sexual identity, it is more difficult to adapt after the transplantation, especially if the donor is a parson of the opposite sex.

In cases of cadaveric transplantation there have been cases of the development of a sense of guilt in the recipient who tries to adopt some characteristics of the donor through factual information or fabricated fantasies. The phenomenon of a psychological incorporation of the deceased donor appears in psychotic patients and demands individual treatment. As a rule, when the kidney has been taken from a cadaver, it is recommended not to reveal the donor's identity.



Psychological characteristics of recipient after transplantation

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The mixture of symptoms of organic and psychological nature is characteristic for psychological changes in transplanted patients in the early and later post-operational period. Free from the dialysis treatment and the intensive contact with the medical staff, the patient in his "new freedom" feels insecure and unprotected, flooded with the ambivalent relationship towards his new abilities and old desires. In the early post-operational period, the fear of the rejection of the kidney hovers over every action he makes and determines his behavior, restricts his activities and dictates his moods. In time the fear gradually becomes diluted it is no longer so much focused on death as on the return to the life at the dialysis treatment, and as the time passed this fear gets more and more covered by the problems dealing with the physical and mental reaction at the immuno-supressive therapy and the new feelings connected with the bodily scheme and the physical identity. The anxiety concerning the physical appearance can be caused by the immediately grafted kidney. Anxiety levels were not modified probably because of the fear of rejection and loss of the graft.

Kidney transplantation improves the physiological and metabolic balance of the patient, and at the psychological level gives him back his self-assuredness (11). Functioning kidney transplant produce a global improvement in quality of life at physical and psychological level (12). Uremic symptoms that dialysis doesn't totally correct including sleep alterations and appetite disorders disappear. Hematocrit and hemoglobin level increase significantly and that is accompanied by an improvement in cognitive function (13). The patient is not subject abrubt electrolyte and volume changes, diet is liberalized and. Life does not depend on mashine, which mean it can be organize with greater freedom and autonomy. For females pregnancy becomes a reality, patients can have holiday where they want.

The recipient experiences the new kidney and its non-physiological location as something foreign that is very difficult to incorporate into the physical integrity of his personality. This new and unusual perception is projected to the partner and causes considerable inhibitions in the intimate sphere and sexual functioning. In relation to the uremic state before and during the hemodialysis treatment, transplanted patients show an improvement of the sexual function, but not exactly the level of functioning as in the pre-uremic stage. The return of urination in the symbolic way reflects the new relationship towards one's own body and the parts of the urogenital apparatus in the sense of a "different views about sexuality" (14).

Sexual dysfunction of transplanted patients is more or less prominent depending on the presence and the individual effect of physical and psychological factors.

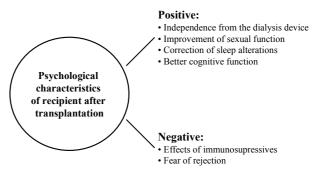
The prevalent physical factors of sexual dysfunction are the partial return of the uremic syndrome, surgical complications and infections, as well as the chronic application of the immuno-supressive therapy that leads to impotence and infertility.

At the psychological level, the disturbed sexual function is the result of periodic episodes of depression, emotional crises and psychological consequences of the steroid therapy which reduce the libido and the interest in sex. The fear of hurting the organ and the imaginary signs of rejection of the organ that appear in physical activities, have a considerable negative motivational effect on the patient in his attempt to realize a sexual intercourse.

Psychiatric complications after the use of steroids in the post-transplantation procedure are not rare and the patient has to be warned about their potential physical and mental effects. Mood changes caused by the drugs may be an important factor to consider in emotional well-being (15). The Cushinoid effect of immuno-supressives is most obviously manifested on the patient's "moon-face", the hair becomes thin and often recedes, which has a stressful effect on the patient in the sense of a negative perception of his body. The intensity of the described effect has a specially emphasized repercussions depending on the patient's age and is most prominent in adolescence (16). Mental changes due to the use of steroids can be manifested through episodes of depression and the symptoms of the so-called "steroid psychosis": restlessness, euphoria, confusion, and paranoid reactions with hallucinations. If the function of the grafted kidney allows it in such situations the doze of steroids should be reduced. Organic psychological changes most often happen in the phase of the kidney rejection when large doses of immuno-supressives are given. The symptoms of confused consciousness can be manifested in an overt or covert form, depressive behavior is very frequent, and sometimes there can appear psychopathological phenomena of a hysteric type.

In some patients the illness can deeply hurt their narcissism, so transplantation is unrealistically viewed as the restoration of total health and the definitive loss of the patient status. The exaggerated demonstration of the "restored health" leads the patients into promiscuity, abuse of various substances, unrealistic activities and the avoidance of the accompanying therapy.

The rejection of the kidney awakes in the recipient painful emotions, "takes him back to the beginning", and puts him again in the position of helplessness and the lack of any perspective, which is more prominent than in the pre-transplantation period. The total psychological fatigue due to the loss of an enormous psychological energy that was invested into transplantation causes the breakdown of mature psychological defenses, which is manifested by the regressive position, a passive attitude or irritation, bad temper and intolerance (17).



The psychiatrist and the grafted patient

Kidney transplantation, as a non-traditional therapeutic method brings along a series of psychological, social, legal, and philosophical problems. Considering the significant psycho-sociological implications in all its stages, this method has soon shown the need for a psychiatrist as the member of a multidisciplinary team (18).

The psychiatrist's role is very delicate, especially in the cases of transplanting the kidney from a live compatible donor, who by sacrificing his healthy organ contributes to the patient's health. Efficient action at the psychological level during different stages of the transplantation procedure demands a preventive preparation of the psychiatrist, which means a thorough knowledge of all the therapeutic modalities that are at the patient's disposal. Current therapeutic possibilities with their advantages and drawbacks have to be presented to the patient and his family at the moment when the almost irrevocable failure of kidney function is expected, so that an optimal therapeutic plan could be made in time, which has a great psychological significance for the patient (19).

A preventive psychological action means the insight into the biological, psychological and sociological frustrations that the illness has created for the patient, the insight into his psychological profile and his defense mechanisms (20). In this way unfavorable reactions to the illness can be prevented and the formation of an adaptive attitude towards the illness, the self and the surrounding can be started. The patient gets the right information about the therapeutic options and limitations (an important stronghold in psychotherapeutic work), in this way getting ready to overcome the first onset of the illness as quickly as possible and endure the new challenges in a mature way. The patient's regressive behavior has a defensive character and should be

understood because the patient's health situation is objectively difficult. The psychiatrist offers a preventive psychological aid and treats psychopathological conditions with the basic idea to help the patient adapt to the illness in a mature way, use his strength rationally, and give meaning to his existence despite significant limitations. In order for this to be done, the psychiatrist has to curb any intention of offering unrealistic hopes and options to the patient in certain situations of crisis, because the deceived patient who has already been well shaken by the somatic disease will not have the power to reorganize himself and restore the balance (21).

When the decision about the transplantation has been made, the psychiatrist's most important task is to evaluate the psychological conditions of the donor and the recipient immediately before the operation (22). In that context it is necessary to warn them and to make them aware of the new-established specific emotional relations, preventively pointing to the possible development of unfavorable psychological and psychopathological manifestations in case of the rejection of the transplant. Where the transplant fails reassurance is needed that the disappointment and depression will pass. The correct treatment of the patient enables a longer functioning and less functional grafts. In time, at the psychological level the potential possibility of the rejection gets more and more relative, while the authentic and free use of life options enabled by kidney transplantation gets more and more prominent. The new quality of life that establishes a harmonic balance between carrying out preventive medical duties and life applicability of therapeutic effects enables "gradual distancing" of the psychiatrist from the grafted patient

References

- Bonomini V. Ethical aspects of living donation. Transplant Proc 1991; 23: 2497-2499.
- Valderrabano F, Jofre R, Lopez-Gomez JM. Quality of life in end-stage renal disease patients. Am J Kidney Dis 2001; 38: 443-64.
- Bakewall AB, Higgins RM, Edmands ME. Quality of life in peritoneal dialysis patients: decline over time and association with clinical outcomes. Kidney Int 2002; 61: 239-48.
- Holley JL, McCauley C, Doherty B, Stackiewicz L, Johnson JP. Patients views in the choice of renal transplant. Kidney Int 1996: 49: 498-499
- Jones J, Payne WD, Matas AJ. The living donosr: risks, benefits and related concerns. Transplant Rev 1993; 7: 115-128.
- Riehle RA, Steckler R, Naslund AC, et al. Selection criteria for the evaluation of living related renal donors. J Urol 1990; 144: 845-848
- Spital A, Spital M, Spital R. The living kidney donor: alive and well. Arch Intern Med 1986; 146: 1993-1996.
- Najarian JS, Chavers BM, McHugh LE, Matas AJ. Twenty years or more of follow up of living donors. Lancet 1992; 340: 807-810.
- 9. Simmons RG, Andeson CR. Related donors and recipients: five to nine years post-transplant. Transplant Proc 1982; 14: 9-12.
- Gouge F, Moore J, Bremer BA, et al. The quality of life of donors, potential donors and recipients of living related donor renal transplantation. Transplant Proc 1990; 22: 2409-2413.

- 11. Witzke O, Becker G, Franke G, et al. Kidney transplantation improves quality of life. Transplant Proc 1997; 29: 1569-1570.
- Christensen AJ, Holman JM, Turner CW, et al. A prospective study of quality of life in end stage renal disease:effects of cadaveric renal transplantation. Clin Transplant 1991; 5: 40-47.
- Kramer L, Madl CH, Stockenhuber F, et al. Beneficial effect of renal transplantation on cognitive brain function. Kidney Int 1996; 49: 833-838.
- Ilic S, Milenkovi M, Poskuri~i V, Stefanovi V. Seksualna funkcija u bolesnika sa presa|enim bubregom. Acta Med Yugoslavica 1984; 38: 61-68.
- Simmons RG, Abress L, Andersen CR. Quality of life after kidney transplantation. A prospective randomized comparison of cyclosporine and conventional immunosppresive therapy. Transplantation 1988; 45: 415-421.
- Hilbrands LB, Hoitsma AJ, Koene RAP. The effect of immunosuppresive drugs on quality of life after renal transplanatation. Transplantation 1995; 59: 1263-1270.
- Kerr S, Johnson E, Pandian K, et al. Psychological impact of a failed kidney transplant. Transplant Proc 1997; 29: 1573.
- Cortesini R. Medical and ethical aspects of living donation. Transplant Proc 1993; 25: 2305-2306.
- Morris PL, Jones B. Transplantation versus dialysis. A study of quality of life. Transplant Proc 1988; 20: 23-26.
- Moosa MR, Grobbelar C, Swanevekler SA, Edelstein CL. The influence of race and the impact of socioeconomic and clinical

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- factors on primary renal allograft survival. Transplant Proc 1992; 24: 1754-1756.
- Terada I, Hyde C. The SF-36: an instrument for measuring quality of life in ESRD patients. EDTNA ERCA J 2002; 28(2): 73-6
- Kasiske B, Bia M. The evaluation and selection of living kidney donors. Am J Kidney Dis 1995; 26: 387-398.
- Matas AJ, Lawson W, McHugh L, et al. Employment patterns after successful kidney transplantation. Transplantation 1996; 61: 729-733.

PSIHOLOŠKI ASPEKT TRANSPLANTACIJE BUBREGA

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Kratak sadržaj: Transplantacija bubrega predstavlja medicinski postupak prožet višestrukim psihičkim implikacijama vezanim za davaoca i primaoca. Odluka pacijenta da se povrgne transplantaciji ili ostane na hemodijalizi je veoma delikatna i podrazumeva uključenje porodice. Činjenica da hemodijaliza postoji kao alternativni postupak, može umnogome da olakša, ali paradoksalno i oteža donošenje odluke. Psihološki stav prema transplantaciji zavisi od mnogih faktora, godina starosti, obrazovanja i karakternih osobina pacijenta. Psihološka adaptacija donora i primaoca na transplantaciju aktuelizuje intrapsihičke konflikte čije pravovremeno prepoznavanje umnogome olakšava pre i posttransplantacini tretman. S obzirom na značajne psiho-socijalne reperkusije u svim fazama transplantacionog postupka, naglašena je uloga psihijatra u multidisciplinarnom timu.

Ključne reči: Transplantacija bubrega, hemodijaliza, davalac bubrega, primalac bubrega, intrapsihički konflikt

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