



Imam Reza General Hospital Newsletter Tabriz University of Medical Sciences



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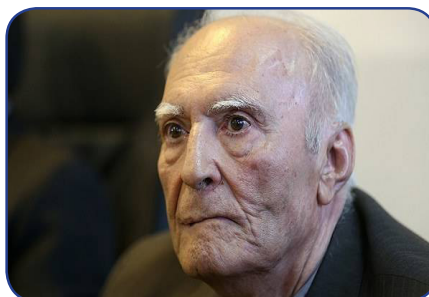


Afshar Zomorodi

Head of Urology Department - Head of Organ Transplant Department of Imam Reza General Hospital

Kidney Transplantation from Beginning to Now

The first kidney transplantation in the Tabriz medical university has been carried out by DR Tvagoli and late DR pourzand in 1981, in which the allograft was a related kidney from a relative donor. The first kidney transplantation in the center of kidney transplantation in the Tabriz university was from un-relative kidney donor which carried out in 1989 by late DR Bohluli, DR Simfrosh, DR Nourizade, DR Zomorodi, it was carried out in cardiac surgery theater room by permission of late DR Danes Hvar. Late DR Bohluli was the first chief of kidney transplant department until 2009 after that time Professor DR Zomorodi was and still, he is the second chief of kidney transplant department, from 2017 professor DR Zomorodi is the first chief of the organ transplantation department at Tabriz medical science university. In 2015 the celebration and congress of 1000th kidney transplantation in Tabriz medical science university carried out by presence and lecture of DR Soemi and DR Simfrosh and DR pourmand and the chief of congress was professor Zomorodi. The kidney transplant department now has 7 nephrologists and 3 surgeons and 31 beds. Now the center of the kidney transplantation of the Tabriz medical science university is one of the top centers in Iran.



*Professor Abbasgholi Daneshvar
The father of modern heart
surgery and professor at Tabriz
University of Medical Sciences, Iran,
had performed the first total heart
transplant in year 1990 in Iran.
May his soul rest in peace and his
memory be blessed*

Visiting of Zahravi Pharmaceutical Company in 14 August, 2021



*Deputy of Education and Research of
Imam Reza General Hospital,
Tabriz University of
Medical Sciences,
expresses its gratitude and
appreciation from the Zahravi
Pharmaceutical Company, Dr. Farhad
Kiafar and the staff of the company,
in holding of one-day scientific tour of
visiting the achievements of company.*



Masood Faghihinevari

Founder and Director-In-Charge's Message
Assistant Professor of Internal Medicine,
Division of Adult gastroenterology
Dean of Imam Reza General Hospital

An Overview on Organ Transplantation

It is about seven to ten people die every day due to lack of access to transplanted organ, while it is near to quarter of people with brain death in the country are used for organ transplantation, and unfortunately more than 75% of people with brain death die without organ donation. The first organ transplant in Iran, academically, was performed by a well-known Iranian scientist, Professor Shams, in 1935. In this brief essay, we mention the first heart transplant operation in Iran, at Tabriz University of Medical Sciences (1990) has performed completely by the late Professor Abbasgholi Daneshvar, the father of modern heart surgery in Iran. Professor Daneshvar has a famous sentence that has remained in our minds in which has well said, "Every human being has a DNA, not a star in the sky. If in the 7th and 8th centuries, there was science, and in the 19th and 20th centuries, science and practice; we live in the century that mankind pursues knowledge, achievement and accomplishment." Fortunately, with the constant efforts of the respected members of faculty of medicine and the board directors of the university, we can now confidently announce that organ transplantation has been established in Tabriz University of Medical Sciences in Imam Reza General Hospital. In this issue of the scientific-newsletter, the fourth issue, we will discuss of the importance of transplantation and the achievements which has been performed in this center. As the head of Imam Reza General Hospital, I see it as my duty to express my gratitude and appreciation for the great efforts of all the doctors, nurses and respected staff of this center, who have continued their life-giving activities even in periods of COVID-19.

Editorial

Hassan Soleimanpour

A Brief Description of One-Year Performance of the Deputy of Education and Research center

Editor-In-Chief



Professor of Intensive Care Medicine
Dean of Education and Research Deputy

It is our pleasure for during the past year of being here and we thank God for having the full support of the Dean of Imam Reza General Hospital, Dr. Masood Faghih Dinevari and the blessings of the chancellor of the Tabriz University of Medical Sciences, Prof. Mohammad Hossein Somi, as well as the Vice Chancellor for Education and Research, Prof. Ali Taghizadieh and Prof. Mohammad Samiei who has provided us services in the field of education and research. Although we believe that these services are not as worthy as of a large general hospital could be, but we should mention the most important things that have been done:

Scope of education:

1. Establishment of clinical Skill Lab department of Imam Reza General Hospital.
2. Holding of airway management training workshops, cardiopulmonary resuscitation, mechanical ventilation and central venous catheter implantation have been going on since November 2016 (for the center's assistants and nurses).
3. Holding of homovigilance training classes from September 2021 for the center's assistants.
4. Initiating of COVID Studio in the hospital. (It is noteworthy to mention that it has been

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Farzad Kakaie

Associate Professor of Surgery-Organ Transplantation
Current status of Liver Transplantation in Imam Reza General Hospital

Liver Transplantation (LT) is an operation through which the diseased liver is replaced with a healthy donated one. This is often the only treatment modality for patients with acute or chronic hepatic failure of various etiologies. This operation is done when the liver is affected by an irreversible disorder (failure) and incorrectly performs some of its functions and the recipient liver will be replaced by a new whole organ or a partial graft from a living donor. Liver failure may occur acutely in conditions such as viral infections, genetic and congenital disorders, malignant tumors or intoxication with herbal or medical drugs or can present as a chronic disorder following chronic diseases such as several forms of viral or autoimmune hepatitis, severe fatty liver (steatohepatitis), alcoholic liver disease or other unknown causes. Since the first successful LT by Dr. Thomas E. Starzl in 1967, LT has advanced to become a routine procedure around the world. Advances in surgical techniques as well as immunosuppression have increased patient survival and improved overall quality of life. The Iranian LT experience began over 25 years ago at the Shiraz Organ Transplantation Center (SOTC) which is the leading transplant center in the country today, having performed over 4000 transplants from deceased and living donors. Near a decade after SOTC began its program, Iran's second transplantation center, at the Imam Khomeini Hospital Complex (IKHC), followed Shiraz's lead in the capital city of Tehran. Soon thereafter, several other hospitals in Tehran, Mashhad, Isfahan, Kerman, Ahvaz, Rasht, Yazd and Tabriz started LT programs in different regions of the country. First attempts for starting liver transplant program in Tabriz were done by Dr Mohammad Hossein Somi in 2007 by providing a preliminary program and sending Dr Farzad Kakaie (The author) to Shiraz as a fellow in liver transplant surgery. First successful liver transplant surgery was done in 2010 by transferring a liver graft from Urmia to Tabriz and the recipient was alive till now without any complications. Most needed infrastructure for liver transplantation surgery was provided before this date but the transplant activity was stopped for next 8 years because of the lack of other personnel and dedicated ward and operating room. Again, Dr Somi, who is in charge of Tabriz University of medical sciences during this period, could inaugurate a specialized transplant operation theater with a dedicated transplant ward in 2018. After that 10 more LTs were done in the next year. Such success was impossible without friendly, voluntary efforts of Dr Ashkan Taghizadeh, as the specialized transplant anesthesiologist graduated from Shiraz University of medical sciences who came to Tabriz from a long distance for each of the operations. He taught our young energetic anesthesiologist, Dr Marjan Dehdilani during this year and now she can manage our patients alone. Recruitment of Dr Ali Sharifi, another young and super-active liver transplant surgeon graduated from Teh-

ran University of medical sciences in 2020 is another major step in the development of liver transplant program in Tabriz. By his efforts, we have done 24 liver transplantation in one year. Now, our only problem is shortage of organs. Unfortunately, organ donation rate in East Azerbaijan is far below the average of the whole country and our organ donation team and coordinators are so weak in increasing our donation rate. During the last year, most of our liver grafts were transferred from Urmia or Tehran by Dr Sharifi. There is a substantial amount of unraveled deceased donor potential in Tabriz, but further education and propaganda targeting an effective communication of our transplant coordinators for motivation of families to donate are needed to increase the donation rate. In the near future we have to start our living donor program but we need more surgeons and more equipment for developing such program.



Imam Reza General Hospital, Tabriz, Iran
Liver transplant Team



Babak Nejati

Associate Professor of Hematology and Oncology

Introduction of Bone Marrow Transplant Section and the Latest Achievements in Imam Reza General Hospital

Hematopoietic stem cell transplantation (HSCT) has the potential to cure a variety of benign and hematologic diseases that may be incurable with conventional therapy. In its broadest form, HSCT consists of three parts: a conditioning phase, stem cell infusion, and for allogeneic procedures, a method for prophylaxis of graft-versus-host disease (GVHD). Conditioning regimens include various combinations of chemotherapy, radiotherapy, and immunotherapeutic agents. All conditioning regimens must produce at least enough immunosuppression to prevent graft rejection; beyond this, they can vary considerably in intensity, ranging from high-dose regimens that result in complete ablation of the patient's bone marrow to reduced-intensity regimens that cause only mild myelosuppression. Stem cells can be obtained from bone marrow (BM), peripheral blood (PB), or umbilical cord blood (UCB). Finally, GVHD prophylaxis can be achieved through immunosuppressive medications or graft manipulation. Not surprisingly, the outcome of HSCT depends on many patient factors, such as age and comorbidities; disease factors, such as diagnosis, disease stage, and prior therapy; donor factors, including human leukocyte antigen (HLA) and gender match; and transplantation factors, including conditioning regimens, stem cell source, and GVHD prophylaxis.

Autologous transplantation:

Autologous stem cell transplantation (or stem cell rescue) allows the administration of high-dose chemotherapy or chemoradiotherapy and eliminates myelotoxicity as a dose-limiting complication. The stem cell source can be either mobilized peripheral blood stem cells or bone marrow. Autologous transplantation is commonly used for lymphomas and myeloma and less commonly for leukemia. Autologous transplantation is also used for testicular cancer.

(Continue on Next Page)

Hassan Soleimanpour, Cont.

done for the first time in the country's training hospital. It is an opportunity has provided virtual education services in this hospital.

- Presenting 17 programs that were related to COVID diseases with cooperation of the center's professors. The programs were on a weekly basis and broadcasted through the virtual networks of Aparat network, (on a weekly basis during the second half of the 2020 year). An exceptional welcoming for these programs was reported from the staff which it had more than 1500 online viewers. It should be noted that Studio COVID-19 programs are saved in the Aparat network and are available for all audiences.
- Holding of several lecture series of COVID-19 new findings in the form of webinars during May and June 2021 in 5 days (with CME license).
- Holding of several lecture series of intensive care medicine webinars with retraining points in October and November 2021 (future plan of the center).
- Holding a series of webinars for the management of trauma patients in the emergency department with 3 programs with CME license in October 2021 (future plan of the center).
- Allocating an account for respected professors of the center to lecture the virtual presentations during the Corona periods.
- Improving of pavilion for residents and students
- Upgrading the facilities for the audio-visual unit of the educational and research deputy of center.
- Continues evaluation performance of intensive care unit of the center from December 2016 onwards (Ongoing).
- Presenting COVID-19 Studio programs in the 14th Shahid Motahari Educational Festival (April, 2021), as a selected educational plan.

2- Scope of Research

- Obtaining the license of Clinical Research Development Unit from the Ministry of Health and then starting the activities.
- Obtaining the license of Innovation Office from the Research Vice Chancellor of the University and then starting the activities.
- Providing daily research consultations programs from 8:00AM to 14:00PM by collaborating with experienced professors of the center in the fields of electronic resource search, essay writing, proposal design, systematic review articles and meta-analysis, article submission and publication follow-up, English article editing, ethics in Research, statistics and epidemiology, and how to obtain an ethic code for research projects.
- Providing daily consultations programs from 8:00AM to 14:00PM in the field of innovation and making idea in the center's innovation office with cooperation of center's experienced professors in the field of innovation.
- Holding the first Virtual National Congress of Patient Safety and Medical Education with CME license in 4 days (26-28th May, 2021) and also it had received more than 100 abstracts and 35 lectures. The electronic file of the congress booklet is available on the center's website.
- Publishing of 4 issues of Persian-English bilingual scientific-newsletter of the center (Ongoing).
- Holding research workshops in the fields of essay writing, electronic resource search, meta-analysis and systematic review, guide to professional ethics of medical professionals and concepts of business innovation.
- Organizing the Center's English website which has been one of the best designed English hospital websites in the country.
- Visiting of Zahravi Pharmaceutical Company in 14 August, 2021.

Babak Nejati

Cont.

In patients with leukemia and lymphoma, there is considerable concern over the reinfection of occult tumor cells along with the marrow or peripheral blood progenitors. Therefore, numerous attempts to purge tumor cells from stem cells have been undertaken. However, it is unclear whether such manipulation affects relapse, and tumor purging is not routinely performed. Arguments against purging include its cost and labor intensiveness. Moreover, for lymphoma and solid tumors, relapse occurs usually at sites of prior bulky disease, suggesting that residual tumor within the recipient, not tumor in the stem cell product, is the primary contributor to relapse. Arguments in favor of purging include gene marking studies showing that marrow involvement can contribute to relapse.

Allogeneic transplantation:

Allogeneic transplantation uses stem cells from either a family member or an unrelated donor. Sources include bone marrow, peripheral blood, or umbilical cord blood. Typically fully matched donors are preferred, but various degrees of incompatibility can be tolerated with appropriate attention to prevention of rejection and graft-versus-host disease (GVHD). Haploidentical transplantation (from family members matched at one HLA haplotype, that is, potentially as few as 6/12 loci) is considered investigational. Conditioning regimens vary in intensity and are categorized by the duration of cytopenia and on the requirement for stem cell support. There are three levels of intensity: Non-myeloablative (NMA), reduced-intensity conditioning (RIC), and high-intensity or myeloablative conditioning (MAC).

High-Intensity Conditioning (Myeloablative-MAC) Transplantation:

Allogeneic transplantation can control malignant disease by two distinct mechanisms. Like autologous transplantation, there is a dose-intensity component from the profound cytotoxicity of the conditioning regimen. Myeloablative conditioning regimens cause irreversible cytopenia and require stem cell support. In addition, the transplanted immune system can recognize mismatched minor histocompatibility antigens or tumor antigens expressed on tumor cells. The resultant anticancer effect is called the graft-versus-malignancy effect (this is commonly referred to as graft-versus-leukemia or graft-versus-lymphoma GVL). Thus, a myeloablative transplant is a two-pronged attack on the underlying disease and has a lower relapse rate than autologous transplantation. Unfortunately, the dose intensity of the conditioning may be prohibitively toxic for older patients or patients with comorbid disease, and early transplant-related mortality can be substantial. Moreover, dose intensity may predispose to more severe early GVHD.

Nonmyeloablative (NMA) and Reduced-Intensity Conditioning (RIC) Transplantation:

Recognition of the contribution of GVL activity to disease eradication led to the development of NMA and RIC stem cell transplantation. NMA regimens cause minimal cytopenia and can be given without stem cell support if required. RIC regimens are intermediate between MAC and NMA because they cause cytopenias of variable duration and should be given with stem cell support. Cytopenia may or may not be reversible. Both conditioning regimens are used for older patients or those who are not eligible for myeloablative regimens (usually by virtue of age, comorbidities, or receipt of a prior autologous transplantation). These transplants are designed not to have direct antitumor activity, but rather to provide sufficient host immunosuppression to permit engraftment of donor hematopoietic and lymphoid effector cells. These effector cells can mediate a GVL effect responsible for tumor control. This type of transplantation is most appropriate either for diseases in remission. Understanding the human leukocyte antigen (HLA) system is critical for proper application of allogeneic stem cell transplantation. HLA loci are found on chromosome 6, and are generally inherited as complete haplotypes. Thus, any two siblings have a 25% chance of sharing two common parental haplotypes. However, crossovers

can occasionally occur during chromosomal replication. Class I antigens—HLA-A, -B, and C. HLA-A, B, and C are expressed on all cells. They are involved in antigen presentation to cytotoxic CD8+ T cells, while HLA-C is implicated in natural killer (NK) antigen recognition. In the past, chronic graft-versus-host disease (cGVHD) was characterized by time of onset. Generally speaking, any manifestation of GVHD after day 100 was termed cGVHD. The NIH Consensus Working Group data suggest that clinical manifestations, and not the time to symptomatic onset after transplantation, determine whether the syndrome is acute or chronic. In addition, a new scoring/grading system replaces the historical system of classifying a patient as having "limited" or "extensive" disease. There is no consensus regarding the pathogenesis of cGVHD. T lymphocytes play a major role but evidence shows that in some patients there is coordinated B-cell and T-cell attack. In addition, some data suggest that cGVHD may be related to autoimmune reactions of the donor cells.



Indications for Stem Cell Transplants

2.Cancer:

a.Leukemia, Myelodysplasia, Lymphoma, Myeloproliferative disease, Testicular cancer, Brain tumors, Pediatric tumors (Neuroblastoma, Wilms tumor ...), Multiple myeloma, Sarcomas such as Ewing sarcoma, b.Germ Cell Tumors, ...

3.Non Cancers:

4.Non Cancers: Bone Marrow Failure

a.Autoimmune diseases : Multiple Sclerosis, Scleroderma, Spondylitis Ankylosing
b.Immune deficiency: SCID, ... and
c.Sickle cell anemia, Thalassemia, ...

HSCT history in Tabriz University of Medical Sciences

The Bone Marrow Transplant center of Tabriz University is located at Imam Reza hospital and Bone Marrow Transplantation Ward have six isolated rooms with ICU facilities. The HSCT unit was started in January 2016 and the first autologous stem cell transplantation in a patient with Multiple Myeloma was done, gradually we increased our admission and all rooms are occupied from last year. And later in 2017 Allogeneic Transplantation in the patient with AML and MRD performed. And then Refractory Lymphoma and AML patients transplanted with Unrelated and Haploidentical donors. 240 patients have been transplanted so far and Overall mortality have been about 20%. HLA Registry established in 2017 and then linked to Iranian HLA Registry Bank. Currently different disease such as Multiple Myeloma and Lymphoma, GCT, AML, CML, ALL, Aplastic Anemia, Fanconi Anemia, MDS ... were transplanted in HSCT Unit of Tabriz University and studies ongoing about Cell Therapy including: NK -Cell Therapy, despite the restrictions imposed by COVID - 19.



Farid Rashidi

Associate Professor of Internal

Medicine-Pulmonary Division

Clinic Report of Pulmonary Hypertension and Pulmonary Vascular Disease in Imam Reza General Hospital

Pulmonary vascular diseases include a spectrum of diseases in various fields of pulmonology, cardiology, rheumatology and several specialized and sub-specialized fields that have received more serious attention in recent years due to the availability of new treatments. In this regard, Tabriz University of Medical Sciences, with its physicians, has been one of the pioneers in this field in the country. To further scientific advancement and benefit from the latest achievements in pulmonary vascular disease and pulmonary hypertension. The activities carried out in this field can be summarized in two areas: outpatients and inpatients. Since many of these patients do not need inpatient services, in order to provide subspecialty services and identify these patients, for the first time since 1994, subspecialty clinics of pulmonary hypertension and pulmonary vascular diseases began to work. At present, after 7 years, this clinic, which has established in Imam Reza General hospital, has become one of the most important referral centers in the country in this field, and about 300 patients with pulmonary hypertension are being cared for in this center. Over the past few years, in addition to neighboring provinces, this clinic has received patients from other centers includes: Zahedan, Isfahan, Kermanshah, Ilam, Kerman, Bushehr, Zanjan, Yazd, and in order to expedite diagnostic and treatment matters, all matters related to diagnosis it takes place within a maximum of 24 hours. One of the important diagnostic method for evaluation of pulmonary hypertension is right heart catheterization, which is performed after passing courses in one of the prestigious centers in the United States with the necessary infrastructure, according to internationally accepted standards. In this diagnostic method, which is the gold standard for assessing the hemodynamics of pulmonary hypertension patients, the hemodynamic status of patients is evaluated at rest and during exercise. Hemodynamic evaluation of patients during exercise, which is performed in a limited number of centers, is very important in evaluating patients with chronic thromboembolic pulmonary hypertension to refer patient for pulmonary artery thrombo-endarterectomy surgery. To assess the hemodynamics of patients during the activity, a special device is used that allows us to more accurately investigate the reasons for the patient's activity exclusion. One of the strengths of the pulmonary hypertension team of Tabriz University of Medical Sciences has been the special focus on the treatment of patients with chronic thromboembolic pulmonary hypertension. The treatment of choice for these patients after various diagnostic stages is pulmonary thromboendarterectomy. Patients who referred to the pulmonary hypertension clinic of Imam Reza Hospital are prepared for surgery after various diagnostic steps. The treatment of these patients is done in limited centers in the world and currently Tabriz University of Medical Sciences is one of the leading centers in this field among the countries of the region. During the last 6 years, with the help and assistance of the team of surgery, anesthesia and nursing, especially the respected heart surgeon, Dr. Parvizi, who is one of the leaders in this field in the country and the region, and the anesthesia team, Dr. Biljani and Dr. Negargar, Achieve significant. In the current situation, in order to expand the scope of activities and attract patients from neighboring countries, efforts have been made to create a special platform to provide services in this field to patients from Azerbaijan, Armenia and Iraq. It should be noted that this clinic is ready to provide services to patients from all over the country every Monday morning in the Pulmonary Vascular Diseases clinics of Imam Reza Hospital.



Zahra Sheikh Alipour

Assistant Professor of Nursing
Recipients' Experiences of
Sensory Perception after
Organ Transplantation

Studies show that patients' experiences after transplantation are enormous and diverse. The post-transplant period is a period of great physical and emotional transition. Before, during and after transplantation associated with the challenges like efforts for surviving, accepting changes and living with them. During all this time, the patient is fighting for survival. Before the transplant his/her fight is for surviving and after the transplant is for preserving new organ. One of the problems that patients face before and after transplantation is psychological problems. Recent studies have shown that transplant recipients do not have a good quality of life due to stress, anxiety and depression, and psychologically organ rejection is associated with physiological rejection. But a person's physical, mental, emotional reactions and adaptation to a transplanted organ depend on his/her feelings and perceptions of inside and outside the environment in relation to the transplanted organ. Therefore, we conducted a study to identify patients' experiences of post-transplant sensory perceptions with a phenomenological approach. In this study, data were collected through interviews with organ recipients and after analyzing their experiences, the results were introduced in the form of a constitutive pattern and six main themes. The six main themes were from the revitalization to growth, the return of autumn, altered family relationships, the purgatory of acceptance or rejection of an organ, the connection of two souls, and the reflection of the presence of an organ in the body. Eventually, these six themes led us to the constitutive pattern of "peaks and troughs on the transplanted organ circuit". In the experience of these participants, perceptions and feelings were centered on the transplanted organ, and most participants at different moments of their lives were affected by these feelings, sometimes peaking to growth and sometimes retreating until the fall of their lives. Their experiences of transplantation were sometimes bitter, sometimes sweet, sometimes painful and sometimes uplifting. Sometimes the organ was as a foreign organ and sometimes was an insider. Sometimes it was felt as a patch to the body and sometimes it was a dual. Sometimes it was a part of the person and sometimes it was a factor of separation and isolation, sometimes it was a factor of changing the person and sometimes it was a replaced and ineffective object.

Participants were very afraid of dying during the operation and saw themselves as one step closer to death. Therefore going to the operating room and surviving was like reviving after death for them. Consequently, when they opened their eyes after the operation and saw themselves alive, they felt that they were born again and entered to a new world. They felt themselves very young and assumed that a new life had begun in their bodies. After regaining the lost power, they increased their activities and started a purposeful life. This period was in fact the period of prosperity and spring of their life. After a few months and the onset of side effects of the drugs, their experiences have been in the form of the return of autumn. As the complications and problems after the transplant became more prevalent, they felt that they had not done anything for their body and they had the same condition that they had before the transplantation, that is, they had to take medicine and have restrictions. Subsequently this was a return to the first point. They stated that over time, they lost the ability to perform activities and the youthful energy they felt in the early days of the transplant diminished and they felt powerless and weak. In their opinion, transplantation was nothing more than a mirage, and the post-transplant period was no different for them than before the transplant. As a result, organ recipients were in a state of incompatibility. They accepted to have organ transplantation in order to recover from the illness. Therefore, they expected to recover after the transplant and get rid of the disease and medication. But after the transplant, they found that in this new era, new drugs and restrictions have been defined for them, along with other responsibilities, including organ maintenance. Therefore, this issue has faced people with a situation that was difficult for them to cope with. They also experienced changes in their family life. They feared in their relationships with family members because they were afraid of the transmission of the infection and the risk of organ rejection. Thus they built a fence around themselves and limited their relations with everyone. On the other hand, because they were expected to have a normal life after the transplant, and when the family have faced with a person who had to comply with restrictions and take medication, could not cope with it, and this led to the rejection and isolation of the transplanted person. Organ recipients stated that the family was in trouble after the transplant and they are a burden on their family. They also believed that their sexual relationship had been affected and that their sexual relationship with their spouse had worsened. In other words, their roles as spouses, mothers or fathers have been affected and disrupted. However in relation to the transplanted organ, the participants experienced different feelings. They are busy with their body in the year after the transplant, then they

start to think about the transplanted organ in their body. They considered the organ as a trust from the donor and tried to keep the organ in order to thank the owner of the trust. They stated that by accepting an organ in their body, they allowed the donor to be alive, and believed that the donor was alive as long as they were alive. On the other hand, despite having a transplanted organ in their body, the donor soul is also present in their body and next to their soul and they are acquainted with it. Therefore, the soul of the donor was considered a partner of his/her body and he/she was considered a partner in the reward and punishment of their deeds. Especially since this was very much understood by heart recipients. Many participants who felt the presence of the donor in their body talked to him/her and apologized to him/her even if they did something wrong. They were also psychologically in the limbo of rejecting or accepting transplanted organ in their own body as an internal organ. The feeling they had from the transplanted organ was that this organ was foreign to their body and had been forcibly sewn and patched to their body. They always felt that he was an organ of another and was unfamiliar and lonely among all the familiar parts of the body. Therefore, they felt that they did not own the organ and they were upset about the transplant of organ of another person, especially an organ of the opposite sex. Meanwhile, the individual's perceptions of the organ, which were influenced by the culture and religion of the individual, intensified the feeling of not owning the organ. In particular, they considered an organ of the opposite sex to be illegitimate and felt more alien to it. Therefore, they had problems in accepting new organ. On the other hand, because they did not consider the organ as their own, they could reject the transplant at any time, and one of their main concerns was the fear of organ rejection. Therefore, in order to accept the transplanted organ in their own body, they sought to know the donor and his/her characteristics. They tried to communicate with the donor family and get to know the donor. They then matched their characteristics with those of the donor, and if their characteristics were similar to those of the donor, they were very pleased and very helpful in accepting the organ. Of course, in the case of kidney recipients, where it is possible to choose the type of donor, before the transplant, they tried to choose someone who has similar characteristics. However, in the case of heart and liver recipients, where this was not possible, after transplantation, they sought to identify the characteristics of the donor and adapt them to their own characteristics. If they matched, they would consider themselves twins with the donor. Finally, participants experienced changes in their mood and behavior after the transplant. Some said they were kinder and some were sensitive. Some believed that the changes that occurred after transplantation were related to the transfer of donor characteristics. Some stated that they had undergone mental changes after the transplant and that their transplanted organ had changed their soul.



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