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Semblances of “Aangdan (organ donation)” with “Kanyadan (gift of a maiden)” under Hindu marriage

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ABSTRACT

This article seeks to draw parallels between various rituals and practices of the Indian wedding and the concept of organ donation and transplantation. The purpose of this article is to make it easier for the layman to relate to the concept of organ donation and transplantation. The article attempts to liken “Kanyadan” (giving away of a daughter in marriage) and “Aangdan” (organ donation); makes comparisons between the two using parameters of legal age, importance of love, search for a suitable match, appointment of middle men, financial investments and legal penalties etc. The article equates traditional match making on the basis of religion with the blood group matching in organ donation and transplantation. It further links the Guna Milap (Matching of fate lines) of the prospective bride and groom with that of Human Leukocyte Antigen (HLA) matching in organ donation and transplantation. It also highlights the significance of ensuring compatibility with internal environment irrespective of best selected matches in both the cases. The engagement ceremony to grant social approval to a marriage is equated with socio-legal approvals by “Authorization Committees” for organ donation and transplantation. Geography or spatial proximity also plays a crucial role in facilitating a marriage as well as organ transplant. The article also concludes that a combination of sadness and jubilation is common in both these events. The post-event management in both the cases is a roller coaster ride – full of apprehensions and anxieties – and needs more investments in terms of money, emotions and care. The two however differ on the infrastructure issue; while it's easy to perform “Kanyadan” at any place by priests or pundits, availability of infrastructure and man-power is restricted in case of “Aangdan”. The author also draws parallel between some unusual marriages and unusual organ donation and transplantations and warns people against commercial donors. She also tries to counsel those feeling cheated and resentful for not receiving organs for transplant despite their names being on top in the waitlisted people for organ transplant. The author underlines that based on this article a role play or social drama could be prepared for conveying the nuances and intricacies of organ transplant to common people.

Keywords: “Aangdan”, Organ Donation, “Kanyadan”, NOTTO, NOTP, Organ Transplantation

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INTRODUCTION

The term “Kanyadan” (1) meaning “gift of a maiden” is a term used when Hindu daughters are married and “Aangdan” (2) is a term used when organs are donated or gifted for transplantation. Both are considered to be the gifts of the highest order. “Kanyadan” is the combination of two Hindi words i.e., “Kanya” and “dan” similar to “Aangdan” i.e., “Aang” and “dan”. While “Kanya” means “maiden”, “Aang” means “organ” and the word “dan” common to both means donation or gifting away (1,2).

Marriage and Organ transplantation are needs of human beings the former arising from the need for permanent companionship in addition to procreation and sexual needs and later arising from organ failures like Kidney, Liver or Heart Failures under specific pathological conditions(3). Incidentally, the processes involved in organ transplantation are somewhat similar to that of a marriage.

After marriage a daughter shifts permanently from its parental house to husband's house. In organ transplantation too there is a permanent shifting of an organ from its original body to another body. The marriage requires a gamut of emotions like love, affection, tension, patience and caring in addition to manpower, material and finances (4). Vast number of ceremonies and rituals are performed before the actual marriage which are usually stressful and time consuming(1, 4). The same holds true for organ transplantation.

Let us see how?

THREE PHASES OF MARRIAGE / ORGAN TRANSPLANTATION

There are three phases of marriage akin to organ transplantation.

The three phases for marriage of a person can roughly be divided into

- Pre-marriageable phase i.e., up to 18 and 21 years for girls and boys respectively (5);
- Marriageable phase (roughly up to 40 years) and

- Post marriage phase which is possible only if one is lucky to find a partner(4), otherwise once the marriageable age is over the person goes into non-marriageable phase (usually after 40 years of life). A time comes when it is felt that suitable age for marriage is over and people stop looking for a suitable match.

Likewise the three phases for organ transplantation can also be divided into

- Pre-transplant phase,
- Transplant phase and
- Post-transplant phase.

A person who needs an organ does not need it instantaneously. An individual usually goes through pre-transplant phase and copes with the failing organ with the help of medicines for some time. As the disease progresses, a stage comes when the person needs an organ transplant (3). Requirement for an organ transplant is determined by a team of specialized doctors based on signs and symptoms including medical investigations of the patient. For example a person can be registered for a deceased donor kidney at National Organ and Tissue Transplant Organization (NOTTO) only if he is a case of End Stage Renal Disease with maintenance dialysis for more than three months (6). The body needs a new organ which has to come either from a living donor or a brain stem dead donor in India. This phase is known as the transplant phase which brings a lot of turmoil within the body of ailing individual and his family as well. There is a limited period within which a person can be transplanted an organ and unfortunately in most of the cases the people waiting for an organ die before receiving it. Therefore a time comes when the transplantation phase can be over like that of one's marriageable age because the physical and biological state of the recipient at that time becomes non-conducive for organ transplant. However, in case of successful organ transplantation the individual has to make lot of adjustments akin to marital adjustments in post-transplant phase.

LEGAL AGE FOR MARRIAGE / ORGAN DONATION AND TRANSPLANTATION

A certain age is always viewed as suitable for marriage. Legally marriageable age for a groom and bride is not less than 21 and 18 years respectively in India (5). Age also plays an important role in organ donation and transplantation. None can pledge to donate organs before 18 years of age and no living donor can donate an organ who is less than 18 years of age (7). However there is usually no restriction of age for donation of organs from brain stem dead donors in India.

LOVE IN MARRIAGE / ORGAN TRANSPLANTATION -

Love, affection and care are important aspects of marriage and same is essential in organ transplantation as well.

Incidentally, love and affection are much more important in organ donation and transplant as compared to marriage. In fact, love is of primary importance in organ donation from living donors in India. In India, it is mandatory for living organ donors to donate organs out of pure love, affiliation and affection (7).

The prerequisite of love in organ donation from living donors has given birth to new expectations from female members within a family. Females are required to part with a segment of their liver or a kidney usually for male members to show their love for them. Females in certain cases also donate to unknown people illegally to rescue their families in financial crisis. Improvement in medical technology has encroached into biological boundaries of human beings that lay down expectations on people to donate organs for transplantation into other people. Incidentally, females are usually the ones who are trapped or go the extra mile to prove their loyalty by donating organs especially for male recipients (7, 8).

It is worth mentioning that there is no importance of love and affection for family members or relatives when it comes to donation of organs from a brain stem dead donor. It is presumed that an individual loves his own countrymen irrespective of their gender, caste, socio-economic or religious status after death. The organs of the brain stem dead donor are given to any person with whom the organ matches the best among the waiting list of patients or as per organ allocation criteria laid down by a national network like NOTTO or a State network (9, 10).

All such recipients of organs are usually unrelated and unknown to the donor. There is no monetary gain to the donor family as a result of such donation. A brain stem dead donor can give new lease of life to 7-8 persons by donating two kidneys, two lungs, heart, liver, pancreas and very rarely intestines (10).

However, in a praiseworthy and landmark decision recently, Directorate General of Health Services (DGHS) favoured a family whose one son was declared brain stem dead and another was on the waiting list for kidney transplant. Their ailing 47 year old son, advocate by profession was allocated one of the kidneys of his brain stem dead brother after bypassing 3000 patients on the waiting list. DGHS felt that by taking this decision they prevented double deaths in the family (11).

SEARCH FOR A SUITABLE MATCH IN MARRIAGE / ORGAN TRANSPLANTATION -

A rigorous search for a suitable match is required in both the cases of marriage and organ transplantation. Generally it is the responsibility of the family to find a suitable match for their family member (4). Likewise the responsibility to find an organ donor also rests on a family (3). The processes in both the cases are tedious, time consuming, stressful and full of roller coaster rides. The rigorous procedure of finding the most suitable match in both the cases aims at ensuring long lasting harmonious existence.

In the case of living organ donation, it is possible to follow a rigorous procedure of finding the most suitable match (7) which may not be possible when it involves donation of organs from a brain stem dead donor. It is because organs from a brain dead donor are required to be transplanted among waiting recipients within a short duration of time (10).

APPOINTMENT OF MIDDLE MEN IN MARRIAGE / ORGAN TRANSPLANTATION -

In order to get rid of inherent troubles and pains associated with match finding, the families prefer to involve middlemen or seek help of matrimonial/organ donation cum transplantation sites that indirectly do the job of finding a suitable match in both the cases.

However, the middle man for organ transplant could be legal or illegal. The middle men for illegal transplants are people who indulge in organ trade to make organs available from living donors. They purchase organs from underprivileged people and charge hefty amounts from recipient family for the purchased organ (8). They trap poor people; give them inadequate or incorrect information regarding procedure of organ retrievals and importance of organs in their own bodies etc. They survey villages for probable donors, whom they sometimes lure with money and a false assurance of a job in the city or a better socio-economic life. Officials of National Organ Transplant Programme (NOTP) are often being alerted to various forms of organ trade like kidnappings for organ retrievals, posting of advertisements on websites and seeking donors in lieu of money. Also the people from the neighbouring country Nepal are enticed to sell organs in India to re-build their homes after the recent earthquake in their own country (12).

The middlemen for legal organ transplants are hired by hospitals called Organ Transplant Coordinators (10). It is mandatory for an organ retrieval or transplant centre to have an Organ Transplant Coordinator in place (13). They counsel families for donating organs of their brain stem dead relatives on ventilators to make organs available for the waiting recipients.

FINANCIAL INVESTMENTS IN MARRIAGE / ORGAN TRANSPLANTATION

Lot of money is spent in marriage right from finding a match. However one usually accommodates the marriage expenses within their own budget (1). Same holds true for organ transplantation (7). While interviewing a liver transplant recipient in India who was lucky to get a brain stem dead donor's liver transplanted in a Government Hospital with minimal financial inputs revealed that the total cost of liver transplant in various private hospitals ranged between 24 lakhs to 60 lakhs but she was the luckiest, having invested not more than Rs. 50000/- in a Government Hospital.

LEGAL PENALTIES IN MARRIAGE / ORGAN TRANSPLANTATION

Unfortunately there are people who indulge in marrying before the legal age i.e., child marriage

which is punishable under the Act(5). In the same way, meagre availability of organs for transplantation has led to illegal child trafficking for organ retrievals from children below 18 years (12), which is punishable under the law(13, 14).

In marriage dowry demand attracts penalties in the form of imprisonment and fine (15). Similarly selling of organs or commercial dealings of organs for transplantation is not permitted legally and attracts penalties in the form of imprisonment and fine (13, 14).

MATCHING RELIGIONS IN MARRIAGE / BLOOD GROUPS IN ORGAN TRANSPLANTATION

Matching is a tedious process in both the cases. Incidentally we have four major religions i.e. Hindu, Muslim, Sikh and Christian akin to four blood groups that are A, B, AB and O. In marriage, preference is always given to same religious match akin to blood group matching in organ transplantation.

It is medically mandatory that Blood group of the recipient be best matched with that of an organ donor (16). The following blood types are compatible for organ donation and transplantation:

PERSON WITH BLOOD TYPE	CAN DONATE ORGAN TO RECIPIENTS WITH BLOOD GROUP	CAN RECEIVE AN ORGAN FROM BLOOD GROUP
A	A and AB	A and O
B	B and AB	B AND O
AB (UNIVERSAL RECIPIENT)	AB only	A, B, AB and O
O (UNIVERSAL DONOR)	A, B, AB and O	O

However, Rh factor is not generally regarded as important in matching organs for transplantation (17). It is usually seen that some people simply marry after finding a compatible religious match. No other matches are done. The same is the case with liver or heart transplant usually. For these two transplants the other elaborate matches are not required usually (17).

MATCHING GUNA (GUNAMILAP) IN MARRIAGE AND HUMAN LUKOCYTE ANTIGEN (HLA) IN ORGAN TRANSPLANTATION

Matching religion or matching blood group alone does not suffice for marriage or transplantation especially in the case of kidney transplant. The second matching that is done is "*Gunamilap*" for marriage (18) and "Human Leukocyte Antigen" (HLA) matching for transplant (16). "*Gunamilap*" is a tradition followed under Hindu marriage to judge the compatibility of the couple who are entering into wedlock. According to Vedic astrology, compatibility of two people is a pre-requisite for tying a nuptial knot. It involves precise astrological calculations to find the compatible *gunamilap* of the horoscopes of the two individuals. This horoscope matching method is based on scoring points that are supposed to influence marriage. More points mean that there are more chances of a successful marriage. *Gunamilap* can yield a maximum score of 36 points. A couple has to score a minimum 18 points for a compatible marriage. If the score is less than 18, marriages are rejected. *Guna* score of 18-24 are considered average scores for marriage. *Guna* score of 25-32 is considered a perfect match. A score of above 32 is technically excellent but could be a problem as both counterparts could be of the same nature and are viewed as unfavorable for a sustainable relationship (18).

Akin to *gunamilap* in marriage "Tissue Typing" or HLA Matching is an important aspect of organ transplant as it is found that the best tissue matched transplants give better post-transplant results. There are six Human Leukocyte Antigens and the best match for any kidney recipient is to have all his six antigens matched with that of the donor. For finding HLA compatibility, a blood test is done in a laboratory to find if the tissues of the donor are compatible with that of the recipient. If less than two HLA match with the donor, the donor is rejected for donation of kidney. Matches above two HLA are accepted for donation (16). The situation is considered the best when there are zero mismatches. It is only in identical twins that tissues are the same, rest everyone has different tissues from everyone else's. Hence organ donation from identical twins is the best match for the recipient (19).

ASCERTAINING WHETHER INTERNAL ENVIRONMENT IS CONDUCTIVE OR NOT IN MARRIAGE / ORGAN TRANSPLANTATION

In case of marriage, the family environment plays

an important role (18) for a fruitful relationship. Is the environment conducive for sustenance of future relationship - is a question that haunts the families before proceeding further in the relationship even after ensuring horoscope compatibility. To ascertain the same, a meeting of the two families, meeting of the couple, and even a visit to groom's house are undertaken to see whether the internal environment is conducive for the bride or not. The outcome of such interactions decides the fate of marriage.

Similarly in organ transplantation, in order to determine whether the internal environment of the recipient body is conducive for the donor organ, a Serum Cross Match is done which is a blood test that takes about 4-5 hours. The cells of the donor are incubated into the serum of the recipient and if the donor cells die as a result of higher concentration of antibodies in the serum of recipient the transplant can't take place. It shows that recipient shall reject the organ if transplanted (16).

In case of second marriage especially after divorce the family of the bride is suspicious of the internal environment and becomes extra cautious with such marriages. Extra efforts are done to ensure compatibility.

Similarly in certain cases like previous transplants, blood transfusions etc., the recipient body is exposed to various foreign antigens and develops antibodies to them. In such cases, to determine internal environment a laboratory test called Panel Reactive Antibody (PRA) is done to identify the levels of antibodies in the recipient body because higher the percent of these antibodies, higher are the chances of rejection of the new organ. People with high PRA are called sensitized. These sensitized people pose a higher rejection risk to the organ and if transplanted, need higher doses of immunosuppressant medicines and have shorter transplant survival (16).

ENGAGEMENT IN MARRIAGE / ORGAN TRANSPLANTATION

After finding these compatibilities the engagement ceremony is performed in presence of family members of the groom and bride to give social approval to the marriage (18). The marriage can be called off even at this stage if dowry is demanded. Providentially any kind of

gains are not accepted in both the cases be it marriage or organ donation.

As organ failures are usually caused by lifestyle diseases that affect the rich mostly, the possibility of exploitation of the poor always exists (12). In order to safeguard people such surgeries cannot be done without the prior approval by an official committee/ authority in case of living organ donation. As per THOT rules 2014 living organ donors can only be known people like "Near Relatives" or "Other than Near Relatives" who have a connection of true love and affection with the recipient (3,20). It is believed that such individuals may not mind sharing their organs to save the lives of their loved ones. THOT-Rules, 2014, permit donation of organs for near relatives like spouse, mother, father, brother, sister, son, daughter, grandfather, grandmother and grand-children after approval by the "Competent Authority". When the donation of organs from other than near relatives like friends, uncles, aunts, cousins etc., is involved, love has to prevail and requires official verification by the "Authorization Committee" of a hospital, a district or a State (7). A lot of time and stress is involved in verifying love for the recipient.

The socio-legal sanction for organ transplant is usually accorded in the hospital premises under "Competent Authority" or "Authorization Committee" members who look at the documents, interview the donor and recipient families. This is a very crucial phase as most of the commercial donors who are thoroughly prepared by middle men to pass the scrutiny, hold their breath till the time donor recipient pairs pass the video recorded tests of these committees. The decision of these committees may or may not accord legal sanction to these transplants (7).

GEOGRAPHY AN IMPORTANT FACTOR IN MARRIAGE AND ORGAN TRANSPLANTATION

Very few like to get their daughters married to a person living far off. In organ transplantation also the organs cannot be sent to far off places because of varying ischemic time. The heart needs to be transplanted within 4 hours, the liver within 12 hours and kidney within 24 hours after their retrieval from a brain stem dead donor as these organs cannot survive outside human body beyond this time (10). Even when the retrieved

organs are transported via aircraft to far off places such procedures involve huge cost (21).

SADNESS AND JUBILATION INSEPARABLE IN MARRIAGE / ORGAN DONATION AND TRANSPLANTATION

An aura of sadness in a bride's home is unavoidable at the time of her departure from parental house. Her parental family can't hold back the rolling tears. For them the only convincing factor is that the girl has found a good life partner (4, 18). The same event in groom's house on the other end leads to an aura of jubilation where she makes her entry. The bride's family at the time of departure are also seen saying to the groom's family "you have taken my heart: please take care of my heart" or "I am parting with my own piece of liver, please take care of her".

In organ transplantation, the donor organs like liver, kidney, heart literally leave the original body with an intention to serve other bodies that otherwise may perish soon. The organs leaving the body of a brain stem dead donor is also accompanied with tremendous grief in donor family and jubilation in recipient families. The donor family in such situations convince themselves, saying that the person is not dead but living in so many recipients or his death did not go in vain as even at death he gave life to many needy people (3).

ADJUSTMENTS AFTER MARRIAGE / ORGAN TRANSPLANT

Marriage involves a sustainable relationship between two families. All attempts are made to ensure stability of marriage respecting social values, customs, traditions (18) and even legislation. The bride is showered with gifts throughout her life to keep the marriage going. The first year being very crucial for the adjustments, the bride is often showered gifts by her parental family not only for herself but for her other immediate family members too to enable her to have a peaceful coexistence within the family. The ultimate aspiration of marriage is to keep the family integrated and avert its breakdown.

The same holds true for organ transplantation. Akin to gifts post marriage, immunosuppressant's play the trick in organ transplantation. To assist in internal adjustments immune-suppressants are pumped into human beings after the

transplant. With time, the number and quantity of immune-suppressants decreases but continue throughout life (22) akin to gifts post marriage.

DESIMILARITIES IN INFRASTRUCTURE AND MANPOWER IN MARRIAGE/ORGAN TRANSPLANTATION

Marriages usually require places like community centres, banquet halls, hotels etc. and they are in abundance all over the country. But as per the records available with NOTTO there are 301 designated transplant centres/ hospitals in different states in the country (23).

Also there is no shortage of priests or pundits required for solemnizing marriages in India but it is pertinent to state that there is paucity of transplant surgeons in this country.

OUTCOME OF MARRIAGE /ORGAN TRANSPLANT –

Irrespective of all the efforts and money put by family in marriage or organ transplant none of the two end like a fairy tale. No one lives happily forever in both the cases. Disturbances, minor disruptions, adjustment and coping problems may erupt and vanish with intangible internal and tangible external support. The threats of separation prevail till the end in both the cases. Some eventually end up in legal separation i.e., divorce- when internal and external mechanisms to keep the couple together in harmony fail (24). Similarly the transplanted organ can be rejected anytime and second transplant done with another organ usually in case of kidney transplant (25).

UNUSUAL MARRIAGES AND TRANSPLANTS

At times some unusual marriages are performed in our society and same holds true for organ donation and transplantation. A few examples are given below:-

1. SWAP MARRIAGE / SWAP TRANSPLANT

There are some instances when daughters are exchanged in two willing families through marriage. The daughter of one family gets married to the son of other family in exchange for their daughter getting married to the son of first family. There is a possibility of such exchange in case of

kidney transplant usually. In certain cases a person needing a transplant may have a family member willing to donate kidney but donor kidney may not be compatible with him. The kidneys of two such willing non-compatible donor recipient pairs are swapped to ensure best kidney match in two recipients in two different families. This is called Swap transplant and has been legalized in India (26).

2. SHARING BRIDE AMONG BROTHERS / SPLIT LIVER TRANSPLANT

In very rare cases there is polyandry in marriage due to scarcity of girls in some pockets of this country when a single woman is married to many brothers (27). Akin to this, shortage of organs in certain cases has resulted in split liver transplants (28) when a single brain stem dead donor's liver is divided between two recipients of liver transplantation.

3. SAMUHIK VIVAH (MASS MARRIAGE CEREMONY)/ ORGAN DONATION FROM A BRAIN STEM DEAD DONOR –

Sometimes community marriages called *Samuhik Vivah* in Hindi are performed among a number of couples in one go (29). Akin to this 7-8 organs like liver, two kidneys, heart, two lungs, pancreas and intestines from a single brain stem dead donor are transplanted among a number of waitlisted organ recipients within a single day (30).

Conclusion-Organ donation and transplant involves almost similar processes akin to marriage of a daughter. A person needs to understand the steps involved in organ transplant which is full of roller coaster rides quite similar to marriage of a daughter.

Future scope of this article- This article is a benchmark and can be referred for development of Information Education & Communication (IEC) material, audio visual spots, script for role play or social drama to make people understand the nuances and intricacies of organ transplant in a simplified language.

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