

Improving organ donation in Central Saudi Arabia

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ABSTRACT

Objective: Organ transplantation is successful. The main challenge in the Kingdom of Saudi Arabia (KSA) and elsewhere continues to be organ shortage. This shortage was not resolved by utilization of living donors. Previous studies indicate that there is underreporting of brain death cases, lack of completion of documentation process, poor medical care in some instances and finally high refusal rate for consent. In order to put this problem in perspective and find a solution, we initiated a collaborative project between 4 hospitals in Riyadh, KSA and The Saudi Center for Organ Transplantation. The initial result of this project is presented in this article.

Methods: A donor team was formed to deal and facilitate the logistical aspect of donation in the 3 main Ministry of Health hospitals in Riyadh. Data with regard to the number of donors reported, documentation and success rate were recorded over 3-months (October 2003 to December 2003) and compared with the preceding 9 months.

Results: During the period from January 2003 to September 2003, the total number of case reported to the Saudi Center for Organ Transplantation in Riyadh region, was 94. Only 53% were fully documented. Families were approached in 45 of these 50 cases in terms of donation and consent was obtained in 15. However, the number harvested was only 10 (11% yield from total number reported). During the period from October 2003 until the end of December 2003, the total number of cases reported from 3 hospitals was 19. Seventeen (90%) of them were documented. The families were approached in 16 cases and consent was obtained in 6. All 6 (32%) donors were harvested.

Conclusion: The above result clearly indicates that a donor team supporting the intensive care unit (ICU) can improve the donation. It is expected that application of a similar project to more ICUs in KSA will have a substantial positive impact on the rate of organ donation.

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Organ transplantation continues to be the treatment of choice for end-stage organ failure. With the advancement in immunosuppression and surgical technique, there is a substantial increased in the success rate of organ transplantation, not only in terms of graft and patient survival, but also in terms of long term quality of life.¹ The main challenge for organ transplantation continues to be organ shortage. This shortage of organ was not resolved

by utilization of living donor.² Organ transplantation continues to depend on cadaveric supply. In the Kingdom of Saudi Arabia (KSA) the main hindrance against the expansion of organ transplant program is organ shortage.³ Though in many countries many of the logistical problems pertaining to organ donation have been aggressively approached.^{4,5} In KSA, there are still a lot to be carried out in order to solve the logistical problem in

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relation to cadaveric donation. Previous studies indicate that there is underreporting of brain death cases, lack of completion of documentation process, poor medical care in some instances and finally high refusal rate for consent.⁴ All these factors create a "domino effect" causing a severe shortage affecting organ transplant programs in KSA and hence, patients survival with end-stage organ failure. In order to put this problem in perspective and find a solution, we initiated a collaborative project between 4 hospitals in Riyadh, KSA and the Saudi Center for Organ Transplantation. The initial result of this project is presented in this article.

Methods. The following hospitals in Riyadh were selected for this project: Prince Salman Hospital, Riyadh Medical Complex and Al-Eman Hospital, Riyadh, KSA. A meeting was conducted between these 3 hospitals and representative from Health Outreach Program and Business Affairs at King Faisal Specialist Hospital and Research Centre (KFSH&RC). Two coordinators were employed by KFSH&RC in order to facilitate the logistics of organ donation in these 3 hospitals. Their work was supervised by a physician forming a donor action team, which helps to coordinate the effort in organ donation at all stages. The sole responsibility of this team includes insuring that all cases in these hospitals are being reported, documentation is completed, the medical care of these donors is optimal and finally all documented cases were approached for consent. Data were recorded in terms of the number of donors reported, completion of documentation process, medical condition of the donor, finally whether consent was obtained and if the consent was obtained organs were harvested. Data were gathered between October 2003 to December of 2003 and these were compared to similar data collected from January 2003 until the end of 2003.

Results. During the period from January 2003 to September 2003, the total number of cases reported to the Saudi Center for Organ Transplantation in Riyadh region was 94. Out of these 94 cases 50 were fully documented (53%). Families were approached in 45 of these 50 cases in terms of donation and consent was obtained in 15. However, the number harvested was only 10 (11% yield from total number reported). During the period from October 2003 until the end of December 2003, the total number of cases reported from 3 hospitals was 19. Seventeen (90%) of them were documented. The families were approached in 16 cases and consent was obtained in 6. All 6 donors were harvested (32% yielded from the total reported).

DISCUSSION. The challenge facing of the organ donation in KSA includes: underreporting of cases, incompleteness of medical documentation, improper medical care of donors, failing to approach the family and refusal to consent. In order to try to solve these problems, a donor action team was put together consist of coordinators and supervised by a physician. The team job was to facilitate the logistics in the process of donation at 4 different stages. It was clear that the biggest impact of this team was to improve documentation. More than 90% of all cases were documented when the donor action team intervenes in terms of solving the logistical problems such as providing electroencephalogram machine, alerting the neurologist to the importance of early documentation and in some cases incentives to act promptly on the documentation in accordance with the protocol of The Saudi Center for Organ Transplantation. This is in comparison to only 50% in the first 9 months of 2003. This obviously has increased the percentage of number of cases where families were approached. Though there was no major difference in the percentage of cases approached, the total number available for family approach was increased as a result of the completion of the documentation process. The other striking difference was the percentage of harvesting and, hence, utilization of donated organs, in the consented cases, which was close to 100% in the last 3 months of 2003 as opposed to 67% in 9 months before that.⁶ This most likely indicates a better medical care of these donors thus, they reached the stage where they could be harvested. The above data indicates clearly that at least in 2 areas the donor situation can be improved substantially. These are the documentation and the medical care, and improving these 2 factors will give a positive impact on the eventual number of donors available for harvesting. At the current health care system in KSA there are no trained donor coordinators in major hospitals, which certainly have negative impact in number of donors available for organ transplantation. From this short experienced it seems that having especially trained coordinators in major hospitals in Riyadh who will be working on the logistics of donation will have a positive impact on the number of donor and subsequently in the number of organ transplantations in the kingdom. It seems that an improvement at different stages of donation process will have an incremental increase in the eventual outcome of donors both in quality and quantity. We do feel that to expand and proliferate the organ transplantation in KSA and to help more patients with end-stage organ disease, organ donation has to be increased and this could be carried out by strategic process to improve the logistic aspects of

donations. The major key players of this process are trained donor coordinators.⁷ Until now there is no training program in KSA and it seems this is important, at this stage, to have a training program to qualify donor coordinators and to be able to help in the donation process at different hospitals in KSA.

In conclusion, this project clearly indicate that having trained coordinators to help in the logistical aspects of organ donation in major hospitals in KSA can give a positive impact on the rate of organ donation.

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