

## **DONOR NEPHRECTOMY (LAPAROSCOPIC, HAND ASSISTED OR OPEN)**

Salazar AB, Pelletier RP, Yilmaz S, Monroy M, Tibbles LA, McLaughlin K, Sepandj F  
Foothills Hospital, Department of Surgery, Calgary, Alberta, Canada

**Objective:** To present the experience at the University of Calgary with the initiation of a Minimally Invasive Donor Nephrectomy (MIDN) program for Live Donor Nephrectomy (LDN) with a preoperative selective approach using the three major techniques for LDN.

**Introduction:** Live Donor Nephrectomy is a major surgical procedure with an accepted low mortality and morbidity. Minimally Invasive Donor Nephrectomy (MIDN) has been shown to decrease the morbidity associated with lumbotomy. Transplant programs face the challenge to start MIDN without jeopardizing the safety of the donor and graft quality.

**Material and Methods:** From December 2001 to May 2004, 50 consecutive LDN's, 15 open (O), 11 laparoscopic (L), and 24 hand assisted (H), were performed. There were no significant statistical differences in sex, age, or body mass index between the groups.

**Results:** Operative times were  $194\pm 27$ ,  $235\pm 29$  and  $213\pm 25$  minutes for O, H and L respectively (O vs H  $p < 0.005$ , H vs L  $p < 0.005$ ). Hospitalization time was  $5.50\pm 0.75$ ,  $3.8\pm 0.95$ ,  $3.7\pm 0.98$  days (3-7 range) for O, H and L respectively. There were no fatalities or major complications related to the procedures, all kidneys had primary function, there were two conversions in group H, and one blood transfusion in group O. Death Censored graft survival was 100%. Observation time was  $19.5\pm 8.8$  months (3 to 32 range), and one graft from group H was lost as a result of death with function eight months after transplant.

**Discussion and Conclusions:** We did not observe a learning curve effect either with donor complications or graft quality. We attribute this to the anticipation of potential problems during the evaluation of donors and the selection of the most appropriate technique for each case. We conclude that MIDN can be implemented without experiencing a learning curve phenomenon if the cases are carefully selected preoperatively and if all techniques are considered.