Objectives: Living-donor nephrectomy has significantly expanded the pool of renal transplant donors, allowing for a marked increase in transplantation. Improvements in antirejection medications and refinement of donor selection criteria have allowed for extremely favorable rates of graft survival. More recently, laparoscopic donor nephrectomy (LDN) has significantly reduced the morbidity of renal transplantation in the donor population. The University of Miami/Jackson Memorial Hospital Transplant Center performs a large number of living-donor nephrectomies, with increasing use of LDN and here we report our cumulative experience.

Methods: A retrospective review was performed of all live donor nephrectomies performed over the last 10 years, including LDN. Surgical complications, both minor and major, were ascertained. Conversion from LDN to open was similarly noted. Follow up, including creatinine one year post-transplant was recorded in open donor nephrectomy (ODN) and LDN groups. Results: Over 10 years, 413 live donor nephrectomies were performed. Of these, 257 were LDN, and 156 were ODN. In two cases, LDN was converted to ODN. Three patients needed reoperation after donor nephrectomy. There were no perioperative mortalities or deep venous thrombosis. Minor complications, including hernia, fever, and C. difficile diarrhea were very rare, the most common being testicular pain in eight patients. Conclusion: Our extensive experience with living donor nephrectomy, with 413 cases spanning ten years, has been very favorable. The risk of major complications was extremely low, with six reported in the series. Minor complications were similarly rare. Living donor nephrectomy is a safe and feasible method of increasing the number of renal transplantation donors with minimal morbidity.

Keywords
Donor nephrectomy, Living donor, Renal transplantation, Nephrectomy, Hand-assisted