

### SC151 History of urological malignancies before kidney transplantation, 30 years of puigvert foundation experience

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**Introduction:** To report oncological outcomes of ESRD patients with histories of urological malignancies who subsequently underwent kidney transplantation (KT).

**Materials and methods:** A chart review of the 1,200 patients who had KT at the Foundation Puigvert (Barcelona) from 1988 to 2018 identified all cases of urological malignancies treated before kidney transplantation. Baseline characteristics, initial staging, treatment and follow-up were noted as well as the chronology of the ignition of dialysis, inscription on the waiting list and kidney transplantation. Endpoints included cancer recurrence, metastasis, death related to cancer and overall survival.

**Results:** 85 urological malignancies in 81 patients were identified: 15 (18%) prostate cancers, 49 (58%) RCC, 19 (22%) urothelial carcinomas and 2 (2%) testicular cancers. Median age at cancer treatment was 57 years [25–79]. A majority of patients received kidneys from deceased donors (76%) and had hemodialysis before KT (96%). Median time from cancer treatment to kidney transplantation was 4.8 years: prostate cancer 3.7 years, RCC 3.9 years, bladder cancer 8.8 years. Median overall survival after cancer treatment was 25.3 years and cancer-specific survival was 95% at 25 years. The median time from ignition of dialysis to kidney transplantation was 22 months in patients with histories of urological malignancy versus 6 months in the total cohort of 1,200 renal transplanted over the same period.

**Conclusions:** Well-selected patients with histories of urological malignancies benefit greatly from kidney transplantation with infrequent and late cancer recurrence. We suggest optimizing the management of patients with low-risk prostate cancers and RCC by shortening waiting time.

### SC152 Robotic kidney transplantation using right-versus left-sided grafts from living donors: an european multicentre experience (ERUS-RAKT working group)

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**Introduction:** RAKT from living donors (LD) is increasingly performed in selected centers with experience in robotic surgery and kidney transplantation (KT). Of note, KT from LD using right-sided graft (RSG) is challenging due to the brevity of the right renal vein and has been associated with a higher risk of perioperative complications in selected series. In this scenario, RAKT may facilitate the performance of vascular anastomoses in case of short renal vessels thanks to the advantages of the robotic platform. However, the evidence on the safety and feasibility of RAKT using RSGs is lacking. The aim of this study is to compare the surgical and early perioperative outcomes after RAKT from LD using right- vs. left-sided grafts in a large prospective multicenter cohort (ERUS-RAKT working group).

**Materials and methods:** After ethical committee approval, data from patients undergoing RAKT with regional hypothermia from LD using RSGs at 10 European referral centers between July 2015 and September 2019 were prospectively collected in a dedicated database. Patients

undergoing RAKT using left-sided grafts (LSG) were used as controls. RAKT was performed following the principles of the Vattikuti-Medanta technique. Intraoperative outcomes and early (30d) postoperative complications (classified using the Clavien-Dindo classification), as well as functional results, were the main study endpoints.

**Results:** Overall, 291 RAKTs were performed during the study period. Of these, 15% were from RSG. The study groups were comparable regarding all donor-, recipient- and graft-related characteristics. Warm and cold ischemia times were also comparable between the two study groups. The median times to complete venous and arterial anastomoses, as well as median rewarming time, were significantly higher during RAKT using RSG (23 vs. 19 min,  $p=0.001$ ; 22 vs. 18 min,  $p<0.001$  and 55 vs. 50 min  $p=0.001$ , respectively), while median time to complete the ureteral-vesical anastomosis and median estimated blood loss were comparable between the two groups. There was no difference between the two study groups regarding both the median 30 d-eGFR and the rate of perioperative surgical complications. Conversely, RAKT using RSG was associated with lower 7 d-eGFR as compared to RAKT using LSG (47.2 vs 53.0 ml/min/1.73 m<sup>2</sup>,  $p=0.013$ ); yet, at multivariable analysis, kidney side was not significantly associated with worse 7d-eGFR.

**Conclusions:** Our preliminary experience outlines that RAKT using RSGs is technically feasible and may achieve noninferior early perioperative and functional outcomes as compared RAKT using LSGs. Larger studies with longer follow-up are needed to confirm our findings.

### SC153 Perioperative and functional outcomes after kidney transplantation from uncontrolled donors after circulatory death (UDCD) vs extended criteria donors after brain death (eDBD): A single-centre experience

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**Introduction:** The progressive increase of patients with ESRD has caused a worldwide shortage of organs for kidney transplantation (KT). As such, the use of kidneys from both “extended criteria” donors after brain dead (eDBD) and uncontrolled donors after circulatory death (uDCD) has been warranted. In this study we report our 3-year experience with KT using grafts from eDBD vs uDCD, focusing on graft survival, perioperative and functional outcomes.

**Materials and methods:** We queried our prospectively maintained KT database to select patients undergoing KT from uDCD and eDBD from January 2017 to December 2019 at our Centre. Static cold storage was employed for grafts from e-DBDs, while hypothermic machine perfusion for those from uDCDs (LifePort kidney transporter, Organ Recovery Systems). The main study endpoints were postoperative complications, delayed graft function (DGF), and eGFR at a short- and mid-term follow-up.

**Results:** Overall, 140 KTs from deceased donors were performed during the study period. Of these, 31 were from uDCD (22.1%) while 46 (32.9%) from eDBDs (overall, 55% of all deceased donors). Compared to uDCDs, the eDBDs were older and had a significantly higher preoperative eGFR; recipients from uDCDs were younger and had a lower median Charlson Comorbidity Index (2 vs 3). No differences between the two groups were found regarding the cold ischemia time, surgical approach, intraoperative complications, and times for vascular and ureteral anastomoses. The proportion of patients experiencing graft nephrectomy was higher in the uDCD group (9.6% vs 2.2%,  $p=0.1$ ), as well as major (Clavien-Dindo grade 3–5) postoperative surgical complications [25.8% vs 21.7,  $p=0.6$ ]. Patients undergoing KT from uDCDs had a significantly longer median length of