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Session Title : Multi-organ transplantation

Overview of lung-kidney transplantation

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Multi-organ transplant is an area of uncertainty in solid organ transplant. It accounts for approximately 1.6% of lung transplants Traditionally, multiple organ dysfunction is one of contraindication for lung transplant. For many reasons, case number is limited and evidences are lacking. Multi-organ transplant candidates have a higher waiting list mortality than individuals listed for single organ transplant. However, after adoption of LAS system, sicker patients on waiting list were more likely being allocated due to urgency and multiorgan transplant is expected to be increased. This lecture will introduce previous data regarding combined lung and kidney transplant and some cases will be shared.
Concurrent renal dysfunction is a poor outcome predictor after thoracic transplant. UNOS da ta reported that approximately 5% of lung transplant had pretransplant renal dysfunction. I mmunosuppressant, especially calcineurin inhibitor, contains renal toxicity, and finally increa se the need for renal replacement therapy after transplant. There is a strong association bet ween pretransplant renal function and postoperative outcome. According to one report, pati ent without renal dysfunction had higher survival, otherwise there were no difference among patients with renal dysfunction performed LKU or lung transplant alone. In other words, LK U can be a better option over isolated lung transplant in a wait-
list patient with significant renal dysfunction.
From another previous report using the United Network for Organ Sharing/Organ Procureme nt and Transplantation Network database, 31 lung-
kidney transplantation (LKU) were performed between 1995 and 2013. Among those (n=31) , 13 were retransplantation for graft failure. The most common indication for kidney transpla nt was calcineurin inhibitor nephrotoxicity (n=11) and 11 were dialysis dependent. Despite c oncurrent renal dysfunction, 1- and 5-
year survival after LKU were 71.0 % and 59.9 %, respectively, which were numerically com parable to isolated lung transplant. Despite the small number of study population or retrospe ctive design, this suggests that LKU can be a feasible option in end-
stage lung disease with significant renal dysfunction. LKU can be a feasible option in an end-stage lung disease, combined with renal dysfunction. However, evidences supporting indication favoring better outcome are lacking. Considering the evidence from other solid organ transplant data, it may require some pretransplant condition. Surgically fittable,

ambulatory and young patients would be a candidate. In addition, ethical issue around organ shortage should be considered.