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cm. Nodal involvement was seen in 36% (N1 in 3 patients and N2 in 1). Mycophenolate mofetil was stepped down in all patients, and everolimus was used in 18% (n=2) of patients. Cisplatin and pemetrexed chemotherapy was used in 2 patients, and palliative radiation in 2. ACR was present in 27% (n=3) of patients and AMR was treated in 18% (n=2). Overall, 55% (n=6) of patients were alive, 45% (n=5) of whom were cancer-free (CF). Mean survival was 26±25 months.

Patient	Lung disease	Explant histology	Stage	Alive	Survival (mo)	Outcome/ cause of death
1	COPD	Invasive AC	IIA	No	48	M
2	COPD	AC (acinar)	IB	Yes	86	CF, ACR
3	COPD	Invasive AC (papillary)	IB	Yes	24	CF
4	COPD	Keratinizing SCC	IA1	Yes	5	CF
5	IPF	AC	IA1	No	7	Failure to thrive
6	IPF	AC (papillary)	IIB	No	48	M, ACR
7	IPF	Invasive AC (lepidic), in AC in situ	IIIA	No	5	M
8	IPF	Follicular lymphoma	Low grade	Yes	31	CF
9	IPF	Invasive nonmucinous AC (lepidic)	IIB	Yes	9	CF
10	CPFE	AC (acinar, micro-papillary)	IIIB	Yes	13	M, AMR
11	CPFE	Invasive AC (acinar, lepidic)	IIIA	No	12	M, ACR, AMR

Conclusions: Explanted native lungs can have incidentally detected primary malignancy. Pneumonectomy was curative in squamous cell carcinoma (SCC) and lymphoproliferative disorders. For AC, metastases (M) and allograft rejection from changes in immunosuppression were major causes of a guarded prognosis. Recipients with explant cancers ≥ stage III had poor short-term survival.

CITATION INFORMATION: Razia D., Arjuna A., Schaheen L., Huang J., Smith M., Bremner R., Walia R. Incidentally Detected Malignancies in Lung Explants: Single Center Case Series *AJT, Volume 21 Supplement 3*

DISCLOSURES: D. Razia: None. **A. Arjuna:** None. **L. Schaheen:** None. **J. Huang:** None. **M. Smith:** None. **R. Bremner:** None. **R. Walia:** None.

All Organs

Non-PTLD/Malignancies

Abstract# 1246

Use of Immune Checkpoint Inhibitors in Solid Organ Transplant Recipients: A Scoping Review

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Purpose: Immune checkpoint inhibitors (ICI) are an emerging treatment for numerous advanced diseases, but their safety and efficacy in immunosuppressed transplant patients is not known. This study undertakes a scoping review of research on ICI use in solid organ transplant (SOT) recipients to determine: 1) What is the effect of ICI on SOT recipients?; 2) What factors influence the effect of ICI on SOT recipients?

Methods: Data Sources: Searches of PubMed, Scopus and MEDLINE were performed with language restrictions on September 1, 2020. **Study Selection**: Any studies that reported the use of ICI in patients with a history of SOT were included irrespective of study design. **Data Extraction**: Three reviewers independently screened citations and performed data abstractions. A variety of variables were extracted from each publication. **Data Synthesis**: Of the total 549 screened articles, 50 articles met inclusion criteria with a sum of 101 cases of ICI use in patients with a history of SOT.

Results: Graft rejection occurred in 42% (n=42) of the cases. Kidneys were the most commonly rejected organ (n=28) with PD-1 inhibitors being the often-implicated etiology (n=32). Nearly 100% of the cases of graft rejection transpired within 2 months of ICI initiation. Patients on steroid monotherapy had higher rejection rates (72%, n=13) versus those on a steroid plus one or more immunosuppressive agents. In cases where graft preservation was pursued, salvage occurred 33% of the time (n=9). Regardless of graft outcomes, patient outcomes were overall poor due to advanced disease. In cases where patient outcome was reported, 71% (n=39) died directly from disease progression.

Conclusions: ICI offer a promising therapeutic alternative to traditional chemoradiation for patients with advanced malignancies. However, their use in patients with a history of SOT poses a significant risk to the transplanted organ and cancer outcomes are worse in patients with SOT. Future studies are needed to delineate the risk and benefit more clearly.

CITATION INFORMATION: Anderson A., Eubank M., Murray K. Use of Immune Checkpoint Inhibitors in Solid Organ Transplant Recipients: A Scoping Review *AJT, Volume 21 Supplement 3*

DISCLOSURES: A.G. Anderson: None. **M. Eubank:** None. **K. Murray:** None.

Abstract# 1247

Pd-1 Inhibitor Treatment in Solid Organ Transplant Patients with Metastatic Cancer

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Purpose: Solid organ transplant patients due to chronic immunosuppression have an increased risk of de novo cancer. Immune checkpoint inhibitors have been recently developed to treat cancer, however, solid organ transplant recipients with cancer have been excluded from clinical trials due to risk of rejection and graft failure. The purpose of our study was to evaluate the outcomes of immune checkpoint inhibitor therapy in solid organ transplant patients with metastatic cancer

Methods: Solid organ transplant patients with metastatic cancer who underwent immune checkpoint inhibitor treatment until 2020 at Seoul National University hospital were retrospectively reviewed. We evaluated the tumor response, rejection, graft failure and overall survival after PD-1 treatment, either nivolumab or pembrolizumab.

Results: Total of six solid organ transplant recipients, 2 kidney and 4 liver transplant, with metastatic cancer who received PD-1 inhibitor treatment were included in the study. The type of primary cancer consisted of 2 hepatocellular carcinomas, 2 skin cancers and 2 lung cancers. 4 patients were diagnosed with cancer more than 10 years after transplantation (124.30-288.63 months) and the other two patients at 7.50 and 17.33 months. There was an addition of mTOR inhibitor after cancer diagnosis for 3 patients, however, there was no change in the immunosuppressive regimen after PD-1 inhibitor treatment for all six patients. The median overall survival was 9.18 (2.73-16.80) months since the start of PD-1 inhibitor treatment. There was no rejection or graft failure. Only 2 out of the 6 patients with stable disease continued more than 4 cycles and eventually all six patients showed progression of disease. There were two deaths related to infections such as atypical pneumonia and sepsis due to urinary tract infection.

Conclusions: Solid organ transplant recipients had no rejections or graft loss after PD-1 inhibitor treatment for metastatic cancer. Further multicenter retrospective studies are needed to evaluate the efficacy and rejection risk of PD-1 treatment in transplant population.

CITATION INFORMATION: Chung C., Ko H., Kim H., Choi K., Han A., Min S., Kang H., Ha J. Pd-1 Inhibitor Treatment in Solid Organ Transplant Patients with Metastatic Cancer *AJT, Volume 21 Supplement 3*

DISCLOSURES: C. Chung: None. **H. Ko:** None. **H. Kim:** None. **K. Choi:** None. **A. Han:** None. **S. Min:** None. **H. Kang:** None. **J. Ha:** None.

Abstract# 1248

Cancer-Specific Mortality in Solid Organ Transplant Recipients with a Prior Cancer Diagnosis

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Purpose: A history of cancer is increasingly common among solid organ transplant candidates, and transplant-associated immunosuppression may increase recurrence risk. We assessed whether transplantation was associated with an elevated mortality among cancer patients.

Methods: Using linked data from the US transplant registry and 13 cancer registries, we compared overall and cancer-specific mortality among cancer patients with vs. without a subsequent transplant. We used Cox regression in cohort and matched control analyses, controlling for demographic factors and cancer stage.

Results: The study included 10,524,326 cancer patients with 17 cancer types; 5425 (0.05%) subsequently underwent transplantation. The median time from cancer diagnosis to transplantation was 4.17 years. Transplantation was associated with elevated overall mortality for most cancers, especially for cervical, testicular, and thyroid cancers (adjusted hazard ratios [aHRs] 3.43-4.88). In contrast, as shown in the table for selected cancer sites, transplantation was not associated with elevated cancer-specific mortality for any cancer site, and we observed inverse associations for patients with breast cancer (aHRs 0.65-0.67), non-Hodgkin lymphoma (0.50-0.51), and myeloma (0.39-0.42).