Prevalence of cancer in long-term kidney transplant patients: A single centre retrospective analysis

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Introduction: It has been estimated that the ten year incidence of cancer in UK transplant recipients is twice the rate of the general population. There is substantial variation in the standardized incidence ratio of different cancers post transplantation. However morbidity and mortality is recognized as an increasing problem. In this retrospective analysis we identify the prevalence of cancer in our Annual Review Transplant Clinic for long-term kidney transplant recipients over 7 years post transplant.

Methods: Retrospective analysis of all (N=581) patients attending the Annual Review Transplant Clinic between 01 May 2010 and 01 September 2017.

Results: N=581 electronic patient records were examined. Of those N=348 (59.9%) were male and N=233 (40.1%) were female. The mean age was 54.2 years (range 20-81 years). The mean GFR was 48.8mL/min. N=173 (30%) had at least one cancer. Of those N=36 (21%) patients had more than one cancer. N=148 (26%) had at least one skin cancer. Of those N=139 (94%) had non-melanoma skin cancer (NMSC), N=8 had melanoma and N=1 skin sarcoma. N=52 (9%) had a genitourinary cancer. Of those N=19 (37%) had prostate cancer, N=9 (17%) had native kidney cancer, N=2 (4%) had a carcinoma in their transplant kidney. There were N=9 (17%) bladder cancers and N=1 (2%) ureteric cancer diagnosed. In addition there was 1 endometrial cancer, 2 cervical, 4 vulval, 2 ovarian, 1 penis, 2 testicular cancers diagnosed. N=26 (4.5%) were diagnosed with post transplant lymphoproliferative disease.

Conclusion: We have catalogued a significant (almost 1 in 3) burden of cancer in a large cohort of long-term kidney transplant recipients. The use of long-term immunosuppression has been implicated as the key aetiology for this. However the relationship between long-term immunosuppression and the incidence and prevalence of cancer in this cohort remains poorly understood. We recommend early and robust cancer screening of all transplant recipients as part of routine follow up.