Results and discussion: Literature review using the terms ‘head and neck’, ‘cutaneous SCC’, ‘prognosis’ and ‘AJCC’ yielded over 200 results pertaining to the prognostic features of HNCSCC, with fewer than 20 peer-reviewed, indexed manuscripts directly relevant to the prognostic performance of the AJCC8 HNCSCC staging system.

The evidence suggests that the omission of prognostically important characteristics (such as patient immunosuppression, depth of invasion, perineural invasion, extent of extranodal extension, and soft-tissue metastases) may contribute to the poor predictive performance of the staging system.

The questionnaire is being currently circulated and the Results will be provided.

38. RETROTRANSPONSON ACTIVITY IN YOUNG PATIENTS WITH ORAL SQUAMOUS CELL CARCINOMA (OSCC)

L. Satgunaseelan¹, M. Gauthier², M. Cowley², K. Lo³, J. Yang³, J. Clark^{4,5}, R. Gupta^{1,4,5}

¹Department of Tissue Pathology and Diagnostic Oncology, Royal Prince Alfred Hospital, Sydney, Australia; ²Children's Cancer Institute Australia, Sydney, Australia; ³Sydney Bioinformatics and Biometrics, School of Mathematics and Statistics, University of Sydney, Sydney, Australia; ⁴Central Clinical School, University of Sydney, Sydney, Australia; and ⁵Sydney Head and Neck Cancer Institute, Chris O'Brien Lifehouse, Sydney, Australia

Background: A recent alarming increase in the incidence of OSCC has been seen in young patients in the absence of tobacco or alcohol use, or HPV integration. Retrotransposons are mobile DNA elements which have been shown to have a role in cancer, particularly LINE-1, with transposition events resulting in mutagenesis.

Aims: To compare the activity of three retrotransposon families (LINE-1, SVA and Alu) between young (<45) and older patients with OSCC.

Methods: 7 young and 16 older non-HPV OSCC patients, whose genomes were sequenced at high depth, were identified from The Cancer Genome Atlas (TCGA). The Mobile Element Locator Tool (MELT) was employed to detect non-reference retrotransposon events in the selected genomes.

Results and conclusions: The total count of putative somatic LINE-1 insertions was significantly higher in the young as compared to the older cohort ($p=0.004$). A significantly higher number of these events were found to occur close to genes ($p=0.019$), with possible roles in cancer predisposition syndromes (e.g., *OR4C45* and *DTNB*). RNA-Seq data is being analysed to assess the potential impact of the insertions on gene expression. The presence of elevated somatic LINE-1 activity in young patients may shed light on the increasing development of OSCC at an early age.

39. HPV-RELATED MULTIPHENOTYPIC SINONASAL CARCINOMA, AN EMERGING ENTITY IN AN UNUSUAL LOCATION: A CASE REPORT

C. Y. Chow, S. Sathiyamoorthy

Department of Anatomical Pathology, Division of Pathology, Singapore General Hospital, Singapore

Background: Human papillomavirus (HPV)-related multiphenotypic sinonasal carcinoma (HMSC), originally known as HPV-related carcinoma with adenoid cystic carcinoma-like features, is a distinct tumour recently described in the sinonasal tract. This peculiar tumour exhibits morphologic features of a salivary gland tumour including admixed ductal and myoepithelial elements, as well as displays an unusual pattern of surface involvement with atypical squamous cells. It is associated with high-risk HPV. Most cases usually present as a large and destructive sinonasal mass with high-grade histologic features.

Aim: We present a case report of HMSC arising in the floor of mouth of a 57-year-old Chinese man.

Methods (clinical history): The patient was an ex-smoker who presented with a floor of mouth ulcer. The lesion was biopsy and was called a submucosal adenoid cystic carcinoma. Subsequently, the patient underwent wide resection of floor of mouth tumour, marginal mandibulectomy and neck dissection.

Results (pathological findings): Macroscopic examination revealed an ulcerative tumour measuring 2.5 cm, extending to the margins. Microscopically, the tumour was composed of basaloid cells showing variable growth patterns including a cribriforming pattern that closely resembles adenoid cystic carcinoma. It was continuous with the mucosa that showed dysplastic squamous epithelium. On immunohistochemistry, the myoepithelial cells were positive for the myoepithelial markers. p16 was positive in both squamous and epithelial components. Metastatic carcinoma was present in two of the harvested lymph nodes. The patient developed pulmonary and liver metastases after two years of follow-up, which were confirmed histologically.

Conclusions: This is the first case of HMSC reported in the floor of mouth, which behaves more aggressively as opposed to those arise from the sinonasal tract. It is important to recognise HMSC as they have a different clinical behaviour. The clue to the diagnosis is recognising the atypical squamous cells on the surface, corroborated by p16 positivity in tumour cells.

40. THE ROLE OF LIVER BIOPSY IN THE MANAGEMENT OF GRAFT DYSFUNCTION AT THE AUSTRALIAN NATIONAL TRANSPLANT UNIT (ANLTU): A RETROSPECTIVE STUDY OF 77 CASES

M. Eghtedari¹, C. McKenzie^{1,2}, J. Kench^{1,2}

¹Central Clinical School, The University of Sydney School of Medicine, Faculty of Medicine and Health, Australia; and

²Department Tissue Pathology and Diagnostic Oncology, Royal Prince Alfred Hospital, Sydney, Australia

Background: Clinically liver allograft rejection in liver transplant (LT) presents with non-specific findings such as fever, jaundice and elevated liver function tests (LFTs). Histopathological assessment of liver biopsies is currently the gold standard for diagnosing graft rejection. Liver biopsy can be associated with complications such as bleeding and sepsis.

Aim: To evaluate the role of liver biopsies in the diagnosis and management of liver rejection in patients who underwent LT at ANLTU in 2015 including (1) histological diagnoses of biopsies performed within 12-months post-LT; (2) changes in LFTs including alanine aminotransferase (ALT), gamma-glutamyl transpeptidase (GGT) and alkaline phosphatase (ALP) pre-and post-biopsy; and (3) changes to management pre-and post-biopsy.

Methods: Retrospective clinical data was collected from RPAH databases. The histopathological diagnoses of biopsy slides were determined by slide review by 2–3 independent assessors according to the Banff criteria and previous biopsy reports. Data was analysed using IBM SPSS version 24.

Results and conclusion: The most common indications for LT in the patient cohort ($n=77$) were alcoholic cirrhosis (26/120, 22%) and hepatitis C virus (23/120, 19%). 39% of patients ($n=77$) underwent at least one biopsy within 12-months post-LT with a total of 41 biopsies. Biopsy outcomes ($n=41$) were TCMR (76%), hepatitis C virus (7%) and cholestatic hepatitis (7%). Mean reduction (95% confidence interval) of ALT, GGT and ALP at 5±1 week post-biopsy in cases of TCMR ($n=29$) were 251 (138–363), 186 (82–290) and 182 (90–274) with p -values of <0.001, 0.001 and <0.001, respectively. In 15 (45%, $n=31$) cases of TCMR, patients received intravenous (IV) methylprednisone pulsing following biopsy, 93% ($n=15$) of which had moderate or severe TCMR. The significant reduction in LFTs post-biopsy and management with IV methylprednisolone following biopsy-confirmed TCMR suggest liver biopsies may play a key role in the diagnosis and management of TCMR.

41. BANFF GLOBAL ASSESSMENT AND REJECTION ACTIVITY INDEX SEVERITY GRADING CRITERIA FOR T-CELL MEDIATED REJECTION (TCMR) IN LIVER TRANSPLANTATION ARE STRONGLY CORRELATED

M. Eghtedari¹, C. McKenzie^{1,2}, J. Kench^{1,2}

¹Central Clinical School, The University of Sydney School of Medicine, Faculty of Medicine and Health, Sydney, Australia; and ²Department Tissue Pathology and Diagnostic Oncology, Royal Prince Alfred Hospital, Sydney, Australia

Background: TCMR is a common cause of graft dysfunction in liver transplantation (LT). Histologically it is characterised by portal inflammation (PI), bile duct damage (BDD) and venous endothelial inflammation (VEI). The Banff Working Group has defined Global Assessment criteria (mild, moderate and severe) and a rejection activity index (RAI), which semi-quantitatively defines a score of 1 to 3 for each component of TCMR (PI, BDD and VEI) to diagnose and assess the severity of TCMR in LT centres.

Aims: (1) Grade the severity of TCMR using Banff Global Assessment and RAI criteria in a cohort of 77 adult patients at RPAH who underwent LT; (2) investigate the relationship between the global assessment and each of the RAI components of the Banff criteria.

Methods: Retrospective clinical data for patients who underwent LT in 2015 was collected from RPAH databases. Biopsy slides were graded under the microscope by 2–3 independent assessors according to the Banff criteria for Global Assessment and each component of the RAI. Total RAI was calculated by the sum of RAI values for PI, BDD and VEI. Data was analysed using IBM SPSS version 24.

Results and conclusion: 30 (39%, $n=77$) patients in our cohort underwent at least one biopsy within 12-months post-LT. TCMR was diagnosed in 31 (76%, $n=41$) of biopsies. Banff Global Assessment was positively correlated with RAI for PI ($r=0.757$, p -value <0.001), BDD ($r=0.626$, p -value <0.001), VEI ($r=0.845$, p -value <0.001), and total RAI ($r=0.900$, p -value <0.001). Thus, we identified for the first time that biopsy grading according to the Banff criteria for Global Assessment and RAI scoring for

TCMR are strongly correlated. This correlation is strongest between Global Assessment and total RAI and VEI, respectively. Further studies to correlate these results with outcome data such as graft survival are required.

42. THE DANGERS OF HERBAL WEIGHT LOSS SUPPLEMENTS: A CASE REPORT OF DRUG-INDUCED LIVER INJURY SECONDARY TO GARCINIA CAMBOGIA INGESTION AND LITERATURE REVIEW

R. E. McCarthy¹, D. G. Bowen^{1,2}, S. I. Strasser^{1,2}, C. McKenzie^{1,2}

¹Royal Prince Alfred Hospital, Sydney, Australia; and ²Central Clinical School, University of Sydney, Australia

Background: Drug-induced liver injury (DILI) should be suspected in patients presenting with unexplained liver disease. Recent data from the US Drug Induced Liver Injury Network reports 16% of acute liver failure cases are causally related to dietary supplements. Up to 50% of the Australian adult population take dietary supplements. *G. cambogia* (hydroxycitric acid), an extract of fruit peel, is a commercially available over-the-counter weight loss supplement implicated in causing acute liver injury in recent case reports.

Aims and methods: We present a case of a 54-year-old woman presenting with acute liver failure requiring transplantation after consuming *G. cambogia* for 2 months. Clinical notes and serological findings were reviewed to establish causality. Formalin-fixed paraffin-embedded representative sections of the explanted liver were stained with haematoxylin and eosin as well as routine special stains. A literature review using PubMed was performed to identify similar cases.

Results and conclusions: The liver showed submassive necrosis. No evidence of underlying chronic liver disease was identified. No other cause for the liver injury was identified on clinical assessment, serology or special stains. The findings were consistent with DILI secondary to *G. cambogia* in view of the temporal correlation with the supplement ingestion. A review of the literature found 34 published case reports of *G. cambogia* implicated liver injury, with 6 cases requiring liver transplantation. Although rare, our case highlights the risks of herbal supplementation. Health professionals should ensure to question patients presenting with unexplained deranged liver function tests or acute liver failure about dietary supplement usage to aid accurate clinical management.

43. AN UNUSUAL CASE OF CYSTIC LUNG DISEASE WITH RECURRENT PNEUMOTHORACES

A. Maghsoudi¹, P. J-C. Wu², A. K. Y. Teoh², W. Varikatt^{1,3}

¹Institute of Clinical Pathology and Medical Research (ICPMR), Westmead, Australia; ²Department of Respiratory and Sleep Medicine, Westmead Hospital, Westmead, Australia; and ³Sydney Medical School, University of Sydney, Australia

Background: Recurrent pneumothorax is a common clinical problem. When it is associated with pulmonary cystic lesions radiologically, it might be biopsied to clarify the underlying aetiology.

Aims and method: We presented a 67-year-old lady with progressive dyspnoea, recurrent pneumothoraces and bilateral