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Other Cancers in Patients With Head and Neck Cancer

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Abstract: Introduction: Head and neck cancers (HNC) are often associated with the development of non-HNC primaries, as the risk factors that predispose patients to HNC are often risk factors for other cancers. Aim: We sought to evaluate whether there was an increased risk of smoking and alcohol-related cancers and also other cancers in HNC patients and to evaluate whether there is a difference between the rates of non-HNC primaries in Aboriginal compared with non-Aboriginal HNC patients. Methods: We performed a retrospective cohort analysis of 320 HNC patients from a single center in Western Australia, identifying 80 Aboriginal and 240 non-Aboriginal patients matched on a 1:3 ratio by sites, histology, rurality, and age. We collected data on the patient characteristics, tumour features, treatments, outcomes, and past and subsequent HNCs and non-HNC primaries. Results: In the overall study population, there were 86 patients (26.9%) with a metachronous or synchronous non-HNC primary. Non-HNC primaries were actually significantly more common in the non-Aboriginal population compared with the Aboriginal population (30% vs. 17.5%, p=0.02); however, half of these were patients with cutaneous squamous or basal cell carcinomas (cSCC/BCC) only. When cSCC/BCCs were excluded, non-Aboriginal patients had a similar rate as Aboriginal patients (16.7% vs. 15%, p=0.73). There were clearly more cSCC/BCCs in non-Aboriginal patients compared with Aboriginal patients (16.7% vs. 2.5%, p=0.001) and more patients with melanoma (2.5% vs. 0%, p value not significant (p=NS). Rates of most cancers were similar between non-Aboriginal and Aboriginal patients, including prostate (2.9% vs. 3.8%), colorectal (2.9% vs. 2.5%), kidney (1.2% vs. 1.2%), and these rates appeared comparable to Australian Age Standardised Incidence Rates (ASIR) in the general community. Oesophageal cancer occurred at double the rate in Aboriginal patients (3.8%) compared with non-Aboriginal patients (1.7%), which was far in excess of ASIRs which estimated a lifetime risk of 0.59% in the general population. Interestingly lung cancer rates did not appear to be significantly increased in our cohort, with 2.5% of Aboriginal patients and 3.3% of non-Aboriginal patients having lung cancer, which is in line with ASIRs which estimates a lifetime risk of 5% (by age 85yo). Interestingly the rate of Glioma in the non-Aboriginal population was higher than the ASIR, with 0.8% of non-Aboriginal patients developing Glioma, with Australian averages predicting a 0.6% lifetime risk in the general population. As these are small numbers, this finding may well be due to chance. Unsurprisingly, second HNCs occurred at an increased incidence in our cohort, in 12.5% of Aboriginal patients and 11.2% of non-Aboriginal patients, compared to an ASIR of 17 cases per 100,000 persons, estimating a lifetime risk of 1.70%. Conclusions: Overall, 26.9% of patients had a non-HNC primary. When cSCC/BCCs were excluded, Aboriginal and non-Aboriginal patients had similar rates of non-HNC primaries, although non-Aboriginal patients had a significantly higher rate of cSCC/BCCs. Aboriginal patients had double the rate of oesophageal primaries; however, this was not statistically significant, possibly due to small case numbers.

Keywords: head and neck cancer, synchronous and metachronous primaries, other primaries, Aboriginal

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