

Sexual debut and association with oral human papillomavirus infection, persistence and oropharyngeal cancer - An analysis of two Australian cohorts

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Background:

Oropharyngeal cancer is increasingly caused by human papillomavirus (HPV), and this increase is believed to be caused by changing sexual behaviour. It has been hypothesised that an immune response to HPV through sexual intercourse is much stronger than an immune response elicited from oral sex. Therefore, people who have their debut of oral sex before or at the same time as sexual intercourse would have a weaker immune response to HPV and hence be more likely to develop a persistent oral HPV infection and oropharyngeal cancer. Drake et al (Cancer. 2021;127[7]:1029-1038) found some evidence that supported this hypothesis.

Methods:

We have reanalysed two of our Australian cohorts with similar data in order to Drake et al to provide a perspective of Drake and colleagues' publication, as sexual behaviour varies depending on culture and geographical location.

Results:

We found that engaging in oral sex (OR 4.46, 95% CI [1.88-10.62]) and being younger than 20 years at oral sex debut (OR 9.46, 95% CI [3.53-25.31]) were both very strong risk factors for oropharyngeal cancer. Participants in the general population cohort who had their sexual intercourse debut before the age of 18 were more likely to be oral HPV positive (OR 2.69, 95% CI [1.50-4.83]). Oral sex debut before sexual intercourse debut was quite uncommon in our two Australian cohorts.

Conclusion:

However, timing of or sexual debuts may further add to risks of oropharyngeal cancer, and future studies should be designed to investigate timing and order of sexual debuts to help clarify the roles of these potential causal factors.

Disclosure of Interest Statement:

The authors declare that there are no personal or financial conflicts of interest to declare in the preparation of this manuscript.