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Results from a Free Oral Cancer Screening Clinic at a Major Academic Health Center:

Ten years of free oral cancer screening at an academic medical center

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Introduction

Public awareness of the signs, symptoms, and causes of head and neck cancer (HNC) remains low[1]. During HNC awareness week each year since 2008, we have offered a free oral cancer screening clinic.

Methods

The annual free oral cancer screening clinic was advertised on local radio, television, on social media, and using flyers posted around the hospital campus. Attendees were asked to complete a questionnaire describing pertinent medical and social history (Supplemental Figure 1). Screening examinations were performed by medical professionals who specialize in the care of HNC patients, with no indirect or direct laryngoscopy performed. Patients were referred for further otolaryngology evaluation if an abnormality was identified and were recommended to undergo routine follow-up with their primary care provider if no abnormality was identified. They were asked to sign an institutional IRB-approved consent form if they were referred for further follow-up evaluation. Descriptive statistics and linear regression were used.

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Results

A total of 1360 patients were screened between 2008-2017 (Supplemental Table 1). The median age of screened individuals was 56 years (range 18-89 years), sixty-one percent were female, twenty percent had a prior cancer diagnosis (skin 8.5%, breast 3%, HNC 0.5%, other/not specified 6.0%).

Almost 50% of patients were current or prior tobacco users, with 14% active smokers at the time of their screening clinic visit. (Figure 1A). The most common type of tobacco used was cigarettes. Between 2009 (first year this data was collected) and 2017, the percentage of active smokers trended down (Figure 1B, linear regression R^2 0.28). A significant proportion of screened patients (63%) reported current alcohol use; this proportion did not vary over time (data not shown). Thirteen percent of patients reported heavy alcohol use, defined as more than one drink per day (Figure 1A). Seventy-three percent of current smokers also reported current alcohol use.

Abnormal findings were identified in 12% of patients, seven of whom (0.5% of screened population) were diagnosed with cancer (Figure 1C) following referral and further evaluation. None of the three patients found to have oral cancer had a history of HNC.

Discussion

Opportunistic screening for HNC is recommended by professional societies during routine healthcare visits[2,3]. Oral cancer maintains a relatively low public awareness[4-6], despite its prevalence as the 6th most common cancer in the US. For the last decade, our multidisciplinary team has held a HNC screening day to help raise awareness. This organized screening program has contributed to good-will across the community and improved the awareness of risk factors for HNC. The program has also contributed to the diagnosis of seven patients with cancer.

In our cohort, the percent of current tobacco users has declined over time, consistent with other reports[7]. Alcohol usage, another known risk factor for HNC[6,8], did not change. Patients were counseled on tobacco cessation, but alcohol cessation guidance was not performed systematically. Given the relatively low public awareness that alcohol is an additive risk factor for HNC[4,6] this provides an opportunity to improve our practices by offering counseling regarding alcohol consumption[9]. We also did not ask patients about sexual habits that have been linked to human papillomavirus (HPV) exposure[10]. This provides another valuable avenue to improve awareness of risk factors for HNC and potential interventions including HPV vaccinations and safe sex practices.

Conclusion

Organized screening events such as this one can help raise awareness of HNC, foster community goodwill, and provide opportunities to educate patients about this potentially deadly disease. The clinic also serves to identify a small number of HNC cases.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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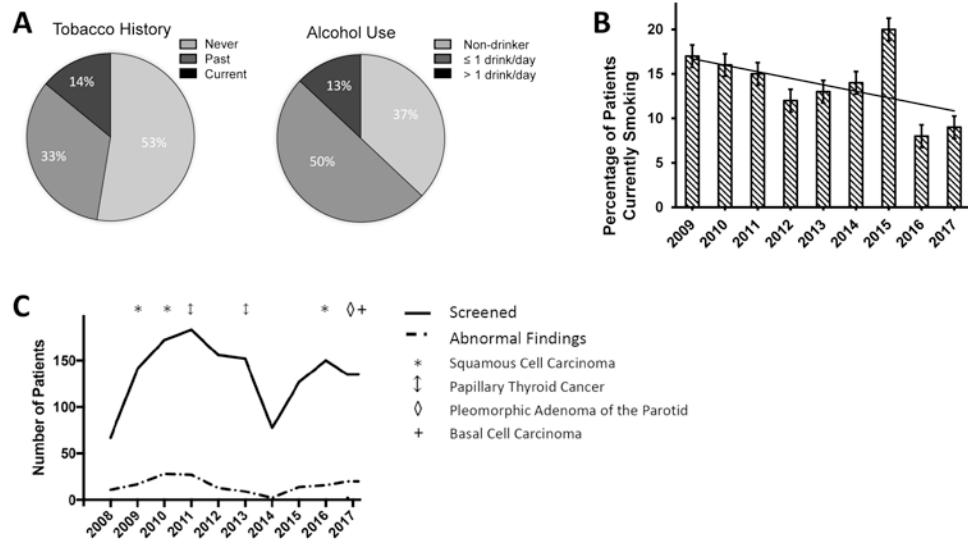


Figure 1. **A.** Pie charts showing the tobacco and alcohol use history of screening participants from 2009-2017. **B.** Graph showing the decreasing trend of tobacco users from 2009 to 2017 with trendline and 95% confidence intervals. **C.** Graph summarizing the screening results of cancers found.