The Epidemiology and Treatment Patterns of Adult Onset Recurrent Respiratory Papillomatosis of the Larynx

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INTRODUCTION

Recurrent respiratory papillomatosis (RRP) are exophytic wart-like growths along the aerodigestive tract.1 Human Papilloma Virus (HPV) is the infectious agent responsible for RRP of which the common serotypes implicated are 6 and 11.2 Adult onset recurrent respiratory papillomatosis (AORRP) is based on age of diagnosis over 12. It is hypothesized that the mode of HPV transmission responsible for AORRP involves transmission through oral contact with infected genitals,3 similar to the transmission of HPV 16 and 18.4 Over recent years those affected by HPV-associated OSCC have shown a decrease in the average age of diagnosis.4 There are no studies to identify any similar trends with laryngeal papilloma.

At the current time, there is no consensus on the optimal modality or setting to manage laryngeal papilloma. The introduction of office procedures to manage papillomas has offered patients a less invasive alternative that does not require a general anesthetic operative visit. The goals of this study are to: (1) Identify changes in the demographics of adult laryngeal papilloma. (2) Identify any trends in the location of treatment options for laryngeal papilloma. (3) Evaluate the efficacy of treatments based on the location where they were performed.

METHODS AND MATERIALS

Patients with a diagnosis of laryngeal papilloma were identified from the two senior authors from the 1990 to June of 2011. Data gathered from charts included: age, gender, year of diagnosis, and age of diagnosis, treatment modality, and date of treatment. Treatment modalities were classified as Operating Room (OR) or office based. Patients were divided among three time periods (prior to 2001, 2002-2006, 2007-2011) for demographics, and treatment location (Office or OR).

To assess the efficacy of treatment based on location, time intervals were identified as months after an office procedure until any subsequent procedure, or months after an OR procedure until any subsequent procedure. These were then averaged to estimate the effective duration of time. To assess the threshold to treat recurrent disease based on location, all repeat procedures were identified. Time intervals were then defined as months after any procedure to office procedure or months after any procedure to OR procedure. These were averaged to estimate the duration of time after any procedure to an office or an OR procedure. Any patients who did not undergo any interventions at our two practices were excluded from these analyses.

RESULTS

173 patients underwent a total of 503 procedures during the course of our review. These procedures are shown in Table 1. The average age for diagnosis was 46 years, and proportion of males diagnosed, 68%, did not change between the defined time periods. A shift towards the OR was identified over time. The mean interval between procedures, regardless of treatment setting, was 11 months. The average duration of time until a subsequent procedure after an OR or office procedure was 14 and 8 months respectively.

CONCLUSIONS

Our study demonstrates the age of diagnosis and male predominance of patients with laryngeal papillomas has not changed over the past 15 years. Office based treatment modalities have shifted the treatment of papilloma from the OR to the office. While the efficacy of these office-based treatments may not compare to OR treatments based on time of palliation, they do offer patients a safe alternative. Office treatments require a fraction of the time of OR procedures, avoid the risks of general anesthesia, and provide a significant financial benefit. These benefits may prove to be of high priority in the management of a chronic recurrent problem such as AORRP of the larynx.

REFERENCES