SMALL VOCAL CORD POLYPS: COMPLETELY RESOLVED WITH CONSERVATIVE TREATMENT

Supaporn Srirompotong, Patchareeporn Saeseow and Patravoot Vatanasapt

Department of Otolaryngology, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand

Abstract. Vocal fold polyps usually occur on the anterior or middle part of the membranous vocal fold and are the commonest laryngeal pathology requiring surgical removal. We report on six cases of small vocal polyps (4 cases angiomatous polyps and 2 gelatinous) that completely resolved using conservative treatment. Not every case of polyps requires surgical removal.

INTRODUCTION

Vocal cord polyps are very common benign non-neoplastic tumors of the larynx occurring in 11-51% of reported cases of benign lesions of the vocal folds (Dikkers, 2000). Polyps are more common in men, particularly those engaging intermittent severe voice abuse (Bastian, 1998). Polyps are found in adults of all ages though most present between the ages of 20 and 60 (Benjamin, 1998).

Persistent hoarseness is the presenting symptom, though sometimes it is insidious, slowly progressive, but unremitting and accompanied by lowered voice intensity and frequency range. The voice sometimes has a breathy quality. The degree of vocal disability varies with the size, site, nature and pedunculation of the polyps (Benjamin, 1998).

It is thought unusual for polyps to disappear spontaneously. They are subject to microsurgery (Bouchayer and Cornut, 1991) or surgical removal (Sataloff, 1997). Some authors report that vocal cord polyps do not improve with medical treatment or speech therapy so surgical removal is necessary to restore the vocal fold to its normal appearance and vibratory function (Benjamin, 1998). Here we report several cases of small vocal polyps that completely resolved with conservative treatment, and to remind readers that not every case of polyps requires surgical removal.

Correspondence: Dr Supaporn Srirompotong, Department of Otolaryngology, Faculty of Medicine, Khon Kaen University, Khon Kaen 40002, Thailand.
Tel: 66-43-348396; Fax: 66-43-202490
E-mail: ssrirompotong@yahoo.com

MATERIALS AND METHODS

After a search of the medical records from July 1997 to July 2002 at the Voice Clinic, Srinagarind Hospital, Khon Kaen University, Thailand, we selected 42 patients diagnosed with vocal cord polyps.

Records were reviewed for age, sex, occupation, duration of hoarseness, characteristics at onset, smoke habit, history of recent upper respiratory tract infections, size and type of polyps, type of treatment, follow-up period and final outcome.

RESULTS

We had 42 patients with vocal cord polyps [28 women (67%)]. The age at onset ranged between 18 and 65 years (mean, 42). Most patients (29%) were teachers, followed by farmers (19%), government official (17%), laborers (17%), merchants and homemakers.

Hoarseness was the predominant presenting symptom (95%) though the type of onset varied: intermittent (38%), slow (33%), and sudden (29%). The duration of symptoms varied from 1 month to 20 years (mean, 17 months). Only 9 of our cases (21%) with vocal cord polyps were cigarette smokers and 18 (43%) had had a recent upper respiratory tract infection.

All of our patients had unilateral vocal cord lesions. Twenty-four (57%) were gelatinous polyps, 14 (33%) angiomatous and 4 (10%) fibrous.

Table 1
Reported 6 patients with vocal cord polyps who had completely resolved with conservative treatment.

Case	Sex,age	Occupation	Onset	Duration (Mo)	Symptom	Type, size	Treatment	F/U (Mo)
1	F ,18	Student	Intermittent	1	Hoarseness	Angiomatous,small	No medication	6
2	M ,60	Farmer	Sudden	1	Hoarseness	Angiomatous,small	Ranitidine	3
3	M ,39	Worker	Intermittent	3	Hoarseness	Gelatinous,small	Prednisolone, ranitidine	1
4	F ,43	Trader	Slowly	2	Hoarseness	Angiomatous,small	Prednisolone	1
5	F ,40	Trader	Intermittent	1	Hoarseness	Gelatinous,small	Prednisolone	1
6	F ,34	Teacher	Sudden	1	Hoarseness	Angiomatous,small	Prednisolone	1

Half (50%) of the polyps were small.

Interestingly, six cases of vocal cord polyps resolved completely with conservative treatment (Table 1). The duration of symptom onset was 1 month (for Cases 1, 2, 5 and 6), 2 months (for Case 4) and 3 months (for Case 3). Four of the small-sized polyps were angiomatous while two were gelatinous.

Conservative medical treatment consisted of short course prednisolone (10 mg per oral tid for 5 days), H_2-blocker or none at all. The length of follow-up after which we found complete lesion resolution was 1 to 6 months.

DISCUSSION

Vocal fold polyps usually occur on the anterior or middle part of the membranous vocal fold and are the commonest laryngeal pathology requiring surgical removal (Benjamin, 1998). Such polyps are most common in men (Bastian, 1998; Benjamin, 1998), particularly those experiencing intermittent severe voice abuse or those working in noisy environments. By contrast, our study encountered vocal cord polyps more often in women than men, perhaps revealing a difference in the behavioral voice pattern among Thai women compared to other regions.

Hoarseness was a predominant symptom, albeit the voice may sound normal if the polyp is hanging in the subglottic space. However, patients may suddenly become hoarse should the polyp impact the glottis.

Tobacco consumption has no association with the development of polyps (Benjamin, 1998). Vocal cord polyps are typically caused by acute and chronic trauma to the microvasculature of the superficial lamina propria. Shearing stresses induced by hyperfunctional glottal sound production lead to bleeding into superficial lamina propria and malformed neo-vascularized masses (Milutinovic, 1996).

It is unusual for polyps to disappear spontaneously, so they are subject to microsurgery (Bouchayer and Cornut, 1991) or surgical removal (Sataloff, 1997). The occasional small, early hemorrhagic polyp will resorb completely with several months of conservative treatment, although surgical removal is typically required to return the vocal fold to its normal appearance, vibratory function and to return the voice to normal capabilities (Bastian, 1998).

Sizable polyps, however, have been observed to resolve with voice rest and a few weeks of low-dose steroid therapy (*ie* triamcinolone 4 mg twice daily) (Sataloff, 1997). One case is recorded of an angiomatous vocal polyp undergoing complete spontaneous regression (Lourenco and Costa, 1996). Our study is significant in reporting six cases of small vocal polyps resolved with conservative treatment between 1 and 6 months. Importantly, hoarseness had occurred just prior to seeking medical attention (range, 1 to 3 months). All of the lesions were small, either gelatinous or angiomatous. These reported cases are an alert that surgery should be recommended with extreme caution in these types of vocal diseases.

In conculsion, not every case of vocal cord polyps requires surgical removal. Small vocal polyps, especially gelatinous and angiomatous ones that have occurred relatively recently, may completely resolve with only conservative treatment.

ACKNOWLEDGEMENTS

The authors thank Mr Bryan Roderick Hamman for assistance with the English-language presentation of the manuscript.

REFERENCES

Bastian RW. Benign vocal fold mucosal disorders. In: Cumming CW, Fredrickson JM, Harker LA, Krause CJ, Richardson MA, Schuller DE, eds. Otolaryngology head and neck surgery. 3rd ed. St Louis: Mosby, 1998: 2096-129.

Benjamin B. Vocal cord polyps. In: Benjamin B, ed. Endolaryngeal surgery. London: Martin Dunitz, 1998: 237-40.

Bouchayer M, Cornut G. Instrumental microscopy of benign lesions of the vocal folds. In: Ford CN, Bless PM, eds. Phonosurgery: assessment and surgical management of voice disorder. New York: Raven Press, 1991:144-66.

Dikkers FG. Nodules, polyps, Reinke edema, metabolic deposits and foreign body granulomas. In: Ferlito A, ed. Diseases of the larynx. London: Arnold, 2000:287-93.

Lourenco EA, Costa LH. Angyomatous vocal polypus – a complete spontaneous regression. *Rev Paul Med* 1996; 114: 1162-5.

Milutinovic Z. Phonosurgical treatment of vocal cord polyps. *Srp Arh Celok Lek* 1996; 124: 311-3.

Sataloff RT. Structural abnormalities of the larynx. In: Sataloff RT, ed. Professional voice: the science and art of clinical care. 2nd ed. San Diego: Singular Publishing Group, 1997: 509-40.