

Our Experience of Voice Therapy in Patients of Benign Vocal Lesions Post Micro-Laryngeal Surgery

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Abstract: *Micro laryngeal surgery² is a common and relatively safe ENT surgery, certain laryngeal conditions require surgery for correction. Surgery for voice problems is quite uncommon, most of the voice disorders can be treated with voice therapy or medical treatment. However there are certain conditions which may require operative measures. We have been doing micro laryngeal surgery (MLS)^{10,2} in our institute for quite a long time (since decades). Research evidence regarding the efficacy of voice rest after micro-flap excision of benign vocal fold lesions is limited. This both results from and contributes to a lack of agreed-upon practice patterns regarding voice rest among physicians. Patients report decreased quality of life during voice rest. Basic science findings increasingly support vocal fold mobilization after the inflammatory phase of healing (3-5 days postoperatively). The purpose of the present study was to determine if longer durations of postoperative voice rest⁵ were associated with improved postsurgical outcomes.*

1. Material and Methods

This prospective study of 60 patients was done in our department of ENT and HNS government medical college for a period of one year from August 2017 till September 2018. Patients who underwent microlaryngoscopic surgery to remove a nodule, polyp, or cyst were included in this study. Outcomes were measured by changes in total Voice Handicap Index (VHI)⁹ score and by changes in the stroboscopic³ parameters mucosal wave and closure, also by a format given to patients to indicate their satisfaction on follow-up. The format used contained questionnaire regarding patients satisfaction about his quality of voice post-operative.

Inclusion criteria:

- Patients above 18 years to 50 years of age
- Patients with benign vocal lesions. (polyps, nodules and cysts)
- Patients with no other medical (neurological) illness

Exclusion criteria:

- Age less than 18 or above 50 years
- Patients with lesions other than described above
- Patients with medical co-morbidities
- Patients with laryngeal (glottis) malignancy.
- Patients lost in follow-up.

We divided patients randomly in two groups group A and group B each containing 30 patients. Group A patients was allotted to patients who were kept on voice therapy post-surgical procedure however group B patients were not advised any voice rest or voice therapy post-surgically. All these patients were followed on 1 week, 1 month and 3 months post operative.

Table 1 showing distribution of patients in two groups

Table 1

Total no. of patients	group A	group B
60	30	30

Table 2 showing gender distribution in two groups

Table 2

Total no. of patients	Group A (30)		Group B (30)	
	Male	Female	Male	Female
60	11	19	9	21

Table 2 showing overall male female ratio of 1:2.

Table 3 showing various benign lesions in two groups

Table 3: Showing various types of lesions in our study.

Type of lesion	group A	group B
Polyp	17	16
Nodule	12	13
Cyst	1	1

All these patients underwent fibro-optic laryngeal examination and stroboscopic³ examination pre as well post-operative on follow-up.

2. Results

Both the group patients included in the study were followed on 1 week, 1 month and 3 month interval. Fibro-optic examination and stroboscopic³ examination was done on each follow-up. VHI⁹ scores improved in both groups by an average of 20.5 points after microlaryngeal⁴ surgery and voice rest and 21.5 points with-out voice rest which was not statistically significant. No significant associations between prescribed or actual duration of voice rest and postsurgical outcomes were found. However we found patients who completed more postoperative voice therapy sessions were

statistically more satisfied than rest patients in terms of voice quality. Females completed more therapy sessions and however they experienced overall less improvement in VHI severity than males.

3. Conclusions

Microlaryngeal surgery is an effective treatment of benign vocal fold lesions². The efficacy of postoperative voice rest^{1,7,8} is still unknown and warrants a well-designed prospective study. Regarding voice therapy proper large scale studies have to be conducted and proper norms have to be framed. Type of lesion, voice therapy, adherence, gender, and age and other factors^{5,6} may be relevant to patient outcomes which needed to be specified for proper outcome.

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