Preliminary Investigation of Coblation for laryngeal papilloma in adults

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Abstract: Objective To explore the efficacy of Coblation for laryngeal papilloma in adults. Methods A retrospective analysis of 21 cases with laryngeal papilloma treated by Coblation. Results All the papillomas were completely resected in one session by Arthrocare Reflex7070# under endoscopic suspension laryngoscope without tracheotomy. Operation time was about 2 ~ 11 min with an average of 4 min. Blood loss was about 1 ~ 13 mL with an average of 3 mL. There were no postoperative complications with normal eating and pronunciation. Local pseudomembrane in surgical site completely fell off after 4 to 6 weeks without obvious scar. The follow-up was carried out from 1 to 3 years and 9 months and there were 4 cases of recurrence with the average recurrence interval of seven months. Conclusions Coblation for laryngeal papilloma in adults under endoscopic suspension laryngoscope was a minimally invasive and effective surgical method.

Key words: Coblation; papilloma; throat; surgery

The 21 cases with laryngeal papilloma from April 2008 to January 2011 were retrospectively analyzed and the results were reported as follows.

Materials and Methods
The 21 patients including 19 male and 2 females aged from 21 to 67 years with an average of 48 years of age. The five of them were multiple laryngeal papilloma while the others were single. The chief complaint included hoarseness and pharyngeal foreign body sensation and other symptoms. The tumors were located in the vocal cords, larynx room, the epiglottis throat face and other parts including one located in the former joint. The tumors were papilloma identified by pathology. After general anesthesia the tumors were removed by Arthrocare Reflex7070# wand under endoscopic suspension laryngoscope with power 7 for ablation and 3 for coagulation. The small amount of bleeding were done by coagulation and the large were stopped by bipolar coagulation.

Results
All the papillomas were completely resected in one session by Arthrocare Reflex7070# under endoscopic suspension laryngoscope without tracheotomy. Operation time was about 2 ~ 11 min with an average of 4 min. Blood loss was about 1 ~ 13 mL with an average of 3 mL. There were no postoperative complications with normal eating and pronunciation. Local pseudomembrane in surgical site completely fell off after 4 to 6 weeks without obvious scar. The follow-up was carried out from 1 to 3 years and 9 months and there were 4 cases of recurrence with the average recurrence interval of seven months.

Discussion
The main purpose of surgical treatment laryngeal papilloma is to control the frequency of relapse and recurrence interval. Coblation technology is another minimally invasive technique used in throat surgery treatment in recent years. The system combines cutting, ablation, to attract, to stop bleeding, flushing a variety of functions in one, which not only saves surgery time, and a clear operative field so that the tumor is not easy to residues, nor will the mass residual. Its low temperature of the surrounding normal tissue damage, rapid postoperative recovery, quality of life will not suffer too much. At the same time without going through gasification resection of the tumor, may reduce the chance of tumor planting and propagation. And the bendable front-end can be easily used to resect anterior commissure lesions. Coblator has the same laser-like cutting action, but can avoid the spread of the virus in the process of gasification organization suspects. We found short surgery time, less blood loss and unaffect postoperative quality of life.

References: