The application of pulsed KTP photoangiolysis in the treatment of adult laryngeal recurrent respiratory papillomatosis.

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Introduction:
Recurrent respiratory papillomatosis(RRP) of the larynx is uncommon but can be a relentless and crippling disease. The papilloma predominate in the glottis but may involve any region of the respiratory tract. Treatment is commonly undertaken by CO2 laser ablation or micro-debrider debulking under general anaesthetic(GA). There is currently no superior treatment modality as these and many other methods have pros and cons. Over the last 5 years photoangiolytic laser techniques using pulsed potassium-titanyl-phosphate(KTP) laser have provided excellent disease control and even appear to reduce the disease severity in some cases.

Methods:
The treatment and progress of consecutive patients with laryngeal RRP was studied over 3 years. Photographic analysis of video-endoscopy was performed at presentation, during treatments and during follow-up. Basic aerodynamic voice measurements and pre and post VHI were recorded. Treatment consisted of operating theatre and/or office-based pulsed KTP laser photoangiolysis to the RRP. The end points were the number of subsequent GA required, percentage of macroscopic disease regression and voice outcome.

Results:
Fifty nine patients over 8 years underwent an initial office assessment, 1-2 operating theatre treatments and/or 1-6 office-based treatments depending on disease response. All patients showed significant or total involution of laryngeal papilloma and the underlying pliability was preserved or improved. All patients preferred office-based treatment over GA with microlaryngoscopy. Voice was normal/near normal in 92% after treatment.

Discussion:
Under GA or office-based treatment, pulsed-KTP photoangiolysis has been shown to be effective in managing laryngeal RRP. Importantly, it also appears to provide excellent voice preservation in RRP patients, especially those with no previous treatment.

Biography



Dr Matthew Broadhurst is a fellowship trained laryngeal and upper airway surgeon specialising in laryngeal surgery, voice restoration and obstructive sleep apnoea. He returned to Brisbane, Australia from Boston, Massachusetts in 2007 having worked for 2 years at Harvard Medical School and Massachusetts General Hospital. He was the first fellowship trained laryngeal surgeon in Australia and now has a large tertiary referral practice in voice and larynx disorders and sleep apnoea. In his practice, he utilises state of the art techniques in surgery to the airway and is actively involved in clinical research and education both nationally and internationally. His areas of special interest and research include KTP laser for dysplasia and glottic cancer, short and long term management of vocal fold paralysis, phonotraumatic lesions in professional voice users and laryngeal papilloma.

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