

The application of pulsed KTP photoangiolytic laser in the treatment of adult laryngeal recurrent respiratory papillomatosis - Matthew S Broadhurst-Queensland Voice Centre

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Introduction: Recurrent respiratory papillomatosis (RRP) of the larynx is uncommon but can be a relentless and crippling disease. The papilloma predominates in the glottis but may involve any region of the respiratory tract. Treatment is commonly undertaken by CO₂ laser ablation or microdebrider 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 potassiumtitanylphosphate (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 videoendoscopy was performed at presentation, during treatments and during followup. Basic aerodynamic voice measurements and pre- and post-VHI (voice handicap index)

were recorded. Treatment consisted of operating theatre and/or office based pulsed KTP laser photoangiolytic laser to the RRP. The end points were the number of subsequent GA required, percentage of macroscopic disease regression and voice outcome. **Results:** 59 patients over 8 years underwent an initial office assessment, 12 operating theatre treatments and/or 16 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, pulsedKTP photoangiolytic laser 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.