KTP laser assisted endoscopic tissue fibrin glue biocauterization for congenital pyriform sinus fistula in children.

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Abstract:

Objective: This study aims to assess the efficacy of a novel endoscopic management for congenital pyriform sinus fistula (CPSF) using potassium titanyl phosphate (KTP) laser assisted endoscopic tissue fibrin glue biocauterization in children. Method: From 2010 to 2014, a total of 5 children with recurrent or acute suppurative thyroiditis or neck abscess secondary to CPSF were enrolled retrospectively in this study. Results: Mean age at the first time of endoscopic biocauterization was 6.2 +/- 0.7 (5-7) years. The barium swallow study detected a fistula in four cases. Endoscopy identified an internal opening at the pyriform sinus in all cases with four on the left side and one on the right side. All patients underwent KTP laser assisted endoscopic tissue fibrin glue biocauterization as treatment for CPSF. Only one case required the second endoscopic procedure due to fluctuation of symptoms. Post-endoscopic follow-up duration of these patients was 24.6 +/- 11.6 (7-36) months. Neither complications nor recurrences were noted during follow-up in all patients. Conclusions: For children presenting with repeated acute suppurative thyroiditis or neck infections, clinicians should highly suspect the possibility of CPSF. Endoscopy should be performed not only to confirm the diagnosis but also could be served as an initial treatment modality of biocauterization by KTP laser and tissue fibrin glue, which was demonstrated as a less invasive, safe, and effective method in children.

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