Laryngeal neurofibroma (LNF) is a rare condition in the paediatric population with only 70 cases reported in literature. We present the first case series with long term follow up of two patients who were successfully treated with radiofrequency plasma ablation for a laryngeal neurofibroma.

**INTRODUCTION**

Children with LNF can present with symptoms of stridor, obstructive sleep apnea and/or dysphagia. Previous treatment modalities have been open resection and endoscopic CO2 laser resection. Radiofrequency ablation (RFA) enables precise tissue removal, with limited thermal damage to surrounding structures, low intra- and post-operative bleeding rates and low post-operative pain scores. It is therefore increasingly being used in airway surgery. We present the first case series with long term follow up of two patients who were successfully treated with RFA for a laryngeal neurofibroma.

**METHODS**

A case note review was performed in two paediatric tertiary referral centres. Both patients were treated endoscopically with plasma RFA using a Coblation® wand (Smith&Nephew). The primary outcome was postoperative complications and the secondary outcomes were perceived success of the surgical procedure and recurrence.

**RESULTS**

Both patients were known with NF1 prior to the diagnosis of LNF. Patient 1 (3-year-old female) presented with airway symptoms. Patient 2 reported to have dysphagia without any airway symptoms. No complications were recorded in the peri- and postoperative period. Both patients had a small residual fibroma on 3 month (patient 2) and 24 month (patient 1) follow up. Both patients symptoms improved after surgery and they have remained asymptomatic during the follow up period.

**CONCLUSION**

RFA provides a safe and effective treatment modality for paediatric patients with the rare diagnosis of laryngeal neurofibroma.