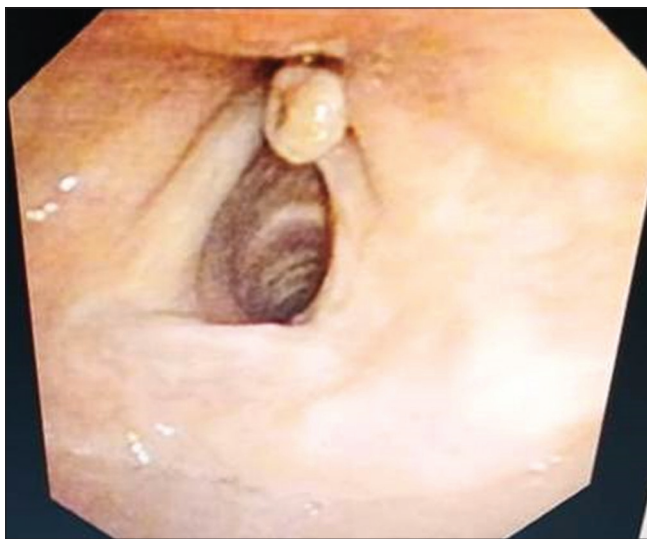


# Cryoablation of vocal cord polyp

Sir,

We hereby present a case of vocal cord polyp as a rare cause of hemoptysis in an adult male and discuss its assessment and management. A 28 years old male presented to hospital with complaint of hemoptysis and hoarseness of voice, diagnosed with sessile vocal cord polyp which was successfully ablated with cryotechnique under conscious sedation. No case is reported in literature of cryoablation of vocal cord polyp till date. Vocal fold polyps are unilateral benign lesions. Their origin is mostly phonotraumatic and patient mostly present with hoarseness and vocal fatigue and rarely hemoptysis, in our case, the patient presented with hemoptysis. Successful cryoablation of polyp was done and confirmed by histopathological examination.

A 28-year-old male presented to hospital with a complaint of hemoptysis (ON/OFF in nature) with hoarseness of voice since 1 month. There was no past history of tuberculosis, asthma, diabetes, and hypertension. Patient is nonsmoker, nonalcoholic and vegetarian by diet. General and systemic examination was within normal limits. Routine investigations, X-ray chest and contrast-enhanced computed tomography thorax were also normal. Direct video laryngoscopy showed a 1 cm × 1 cm sessile benign polyp on the anterior commissure abutting medial borders of vocal cords [Figure 1]. We successfully did cryoablation of polyp with the help of cryoprobe [Figure 2]. The cryoprobe, guided through the working channel of the bronchoscope and the tip was made to kiss the polyp (1 cm × 1 cm). The

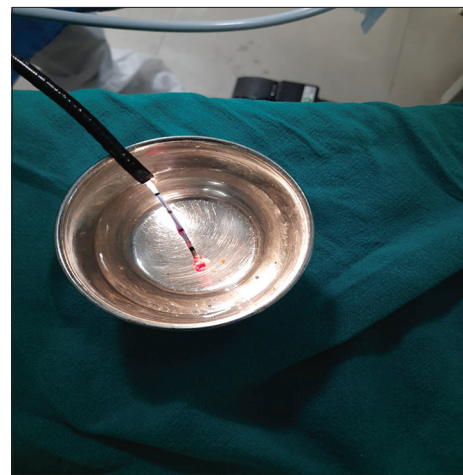


**Figure 1:** Direct laryngoscopy showing sessile polyp on anterior commissure of vocal cords

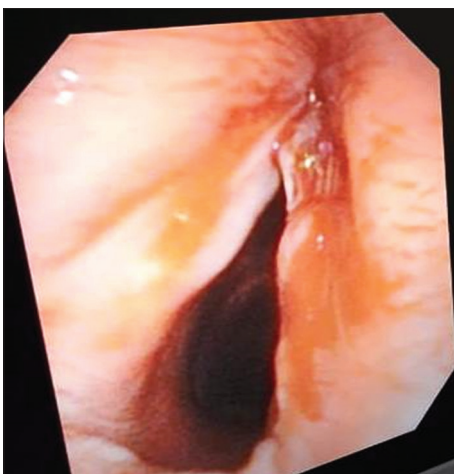
probe tip was then cooled for 10 s. Freezing of the tumor tissue was endoscopically visible. Control of the ice front allowed good assessment of the local extension of tissue freezing. Four cycles of freezing and thawing were done at interval of 3 min, the polyp was thus successfully cryoablated and removed [Figure 3].

A treatment modality for patients who have various voice complaints cannot be recommended just by evaluating the morphological features of their VFPs. Instead, the patient's complaints can primarily be considered as a guide in clinical decision-making.<sup>[1]</sup> In a study of 94 patients diagnosed with vocal polyps, Jeong *et al.*<sup>[2]</sup> evaluated the outcome of conservative management. Of these 36 patients, almost 80% had polyps resolved in 8 months. Therefore, for small, recent-onset polyps, observation might offer an alternative to surgical management. Surgery is normally adopted for this type of vocal fold lesion.<sup>[3]</sup> However, some recent studies demonstrated the importance of speech therapy as a primary treatment of polyps.<sup>[4]</sup> We tried voice rest and voice therapy but patient did not respond. Many studies have shown positive results for endoscopic laser treatment of vocal fold polyps.<sup>[5]</sup> According to Ivey *et al.*,<sup>[5]</sup> the effectiveness of this technique in angiomatous polyps is due to their photocoagulative property, primarily in small lesions. Another case has been reported as in-office resection of vocal fold polyp under local anaesthesia with sharp, side-biting cup forceps that allowed resection at the level of epithelium,<sup>[6]</sup> but in our case, it was done with cryoprobe.

We successfully did cryoablation of polyp using cryoprobe. The most common complications of



**Figure 2:** Cryoablation of polyp done using simultaneous freezing and thawing technique



**Figure 3:** Vocal cords after successful removal of polyp

cryosurgery are bleeding and hypoxia but we did not encounter any such complication in our patient. Despite its high efficacy, low cost, and relative safety, this technique remains underutilized. The technique is easy to learn and has a low cost compared with other endobronchial treatment modalities. Thus, cryoablation is a safe technique and we are reporting the first case in literature.

To conclude, our patient presented with hemoptysis, successful cryoablation of polyp was done and confirmed by histopathological examination. No complications were encountered during or after the procedure, post cryoablation patient symptoms resolved and are doing well on regular follow-up.

#### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient (s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

#### Conflicts of interest

There are no conflicts of interest.

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