majority of our patients would have not tolerated. In our opinion, if a patient is fit for surgical lung biopsy, this is the procedure we would recommend (gold standard), unless they refuse.

The question about freezing time is based on our 200+ TBLC experience. The cryoprobes are fragile by nature, and continuing use of them extends the freezing time to achieve an iceball that will provide an acceptable biopsy size. We standardized the freezing time about 2.5 years ago to the time necessary to make a 13-Fr iceball with the 1.9 mm probe and 16-Fr iceball with the 2.4 mm probe, whether it is 3 or 8 seconds.

Finally, we would like to establish that in no regards our technique is the same that Dhooaria et al\(^1\) described in a case report. If their technique would have been successful, they would have continued to use it and have a robust database.

The use of a Fogarty balloon is cumbersome and will not be useful if taking TBLC samples from the upper lobes. Furthermore, without direct visualization, there is always uncertainty of the location of the already inflated Fogarty balloon. While the balloon theoretically would prevent blood spilling into the contralateral lung airways, in patients with marginal lung function, this could pose grave danger to them.

The use of an artificial airway reduces the insertion time of the second bronchoscope significantly (as opposed to try to insert it nasally, as per Dhooaria and colleagues), while the use of general anesthesia increases patient’s comfort and reduces patient’s cough, which reduces complications.

Lastly, we do recommend TBLC to be performed only in bronchoscopic centers of excellence.

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Juvenile Bronchopulmonary Fibrosarcoma

To the Editor:

Primary bronchopulmonary fibrosarcoma is the second most common intrathoracic sarcoma after leiomyosarcoma.\(^1\) Because of the limited number of cases, there are only a few studies that describe the management of these tumors. Here, we present a case of juvenile bronchial fibrosarcoma that developed asynchronously at 2 separate sites in the right main bronchus (RMB). We discussed the benefits of rigid bronchoscopy and surgery toward the management of these tumors with a review of the literature.

A 13-year-old girl was admitted to our hospital in December 2013 with complaints of cough, hemoptysis, and dyspnea and SpO\(_2\) of 60%. On physical examination, the respiratory rate was 46/minute and the right chest was found to be silent on auscultation. The chest radiograph revealed complete opacification of the right lung. A computed tomography of the chest with contrast revealed a soft tissue lesion completely occluding the RMB.

A rigid bronchoscopy confirmed the presence of the lesion arising from the right upper lobe bronchus completely occluded the RMB. The distal RMB was fully patent. The endobronchial portion of lesion was removed using an endobronchial electrocautery. An immunohistochemical staining of the biopsy samples showed the presence of a juvenile bronchopulmonary fibrosarcoma. The mitotic index was >10 per 10 high-power fields. A symptomatic treatment was offered at this stage.

Three weeks later the patient developed hemoptysis and dyspnea. A repeat computed tomography of chest showed the tumor now infiltrating the right lower lobe bronchus (Fig. 1). A repeat bronchoscopy revealed regrowth of the tumor yet, this time originating from the right lower lobe bronchus while the right upper lobe bronchus was patent. Luminal patency was reestablished using endobronchial electrocautery.

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Eventually the patient underwent successful pneumonectomy with mediastinal lymphadenectomy. The pneumonectomy specimen confirmed the 2 separate origins of the tumor (Fig. 2).

The juvenile bronchopulmonary fibrosarcoma is a rare tumor of the airways with <100 cases reported. This case is of interest as the tumors developed asynchronously at 2 separate locations. The site of origin could have been either the endobronchial tree or the lung parenchyma. This rare malignant tumor occurs in the large airways of younger individuals but tends to localize in the parenchyma in older individuals. Endobronchial fibrosarcoma has been shown to have a better diagnosis than inraparenchymal fibrosarcoma.

We used rigid bronchoscopy accompanied by high-frequency electrocautery to resect the tumors. The combination of rigid bronchoscopy and electrocautery or laser is useful in establishing airway patency from the lesion. Kunst and colleagues have used rigid bronchoscopy with electrocautery to completely remove a tumor from the right mainstem bronchus that originated from the right upper lobe carina. The patient had no recurrence or metastasis and remained free of the disease for over 5 years.

Surgery remains a mainstay treatment for fibrosarcoma. In our case, although we achieved a complete endobronchial resection of the tumor with rigid bronchoscopy and electrocautery, the appearance of tumor at a second location led us to use surgery as a curative option. Mitotic index is useful in deciding for surgical treatment and is of prognostic significance. Besides, it has been showed that tumors with 8 mitotic figures per 10 high-power fields behave aggressively. Our patient had a much higher mitotic index which also helped us choose the appropriate treatment modality. Our patient continues to do well without any evidence of recurrence.

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