MONARCH™

BRONCHOSCOPY CASE STUDY

DR. JOSPEH SEAMAN - SARASOTA MEMORIAL HOSPITAL

Diagnosis of 15 mm Posterior RUL Peripheral Nodule

Fig. 1

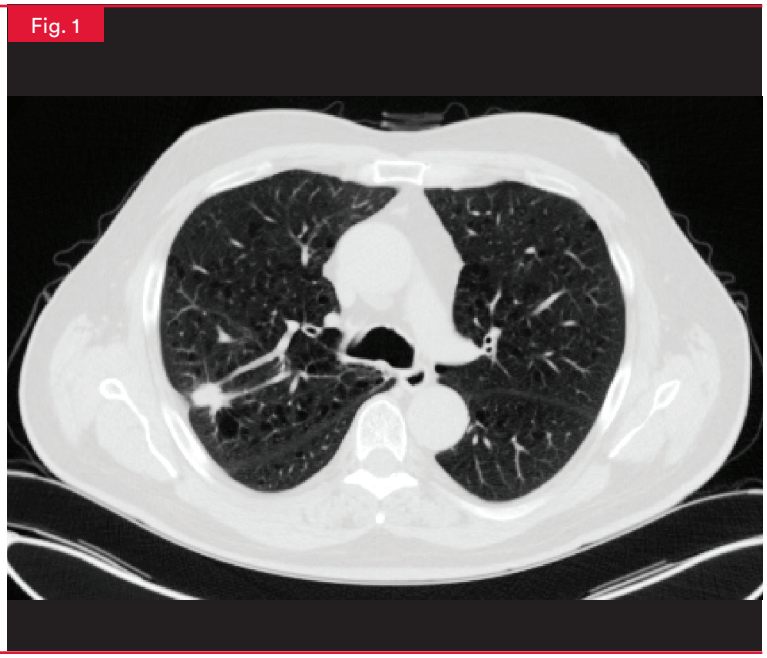


Fig. 2

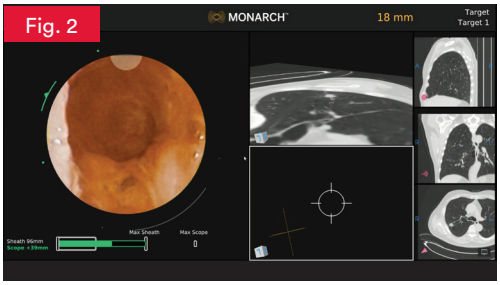
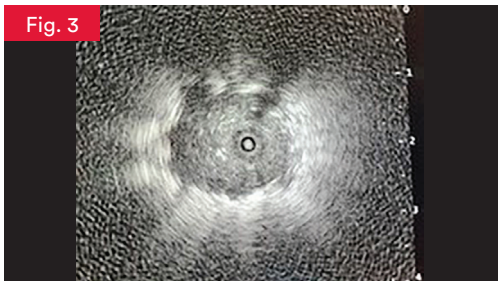


Fig. 3



Background

The patient is a 74-year-old male with a 50 pack-year smoking history who was referred 18 months prior for an incidental 13 mm RUL nodule. A work-up at that time showed low level PET activity. A navigation bronchoscopy was performed using legacy technology and was non-diagnostic. The patient was then referred for transthoracic needle biopsy and that procedure was also non-diagnostic. The nodule slowly grew to 15 mm over the course of the next 18 months, and so a MONARCH™ Bronchoscopy was scheduled to diagnose this nodule.

Procedure

Planning/Procedure Summary

The nodule was located in the posterior RUL with no bronchus sign visible on CT. There appeared to be two blood vessels on either side of the nodule on axial CT (Fig.1). The navigation was difficult to optimize access to the nodule. The nodule was completely eccentric on R-EBUS on the initial approach. After using a biopsy needle to traverse the bronchial wall and access the lung parenchyma (Fig.2), the mini probe was passed through the bronchial wall and a concentric R-EBUS signal was visualized (Fig.3).

Nodule Characteristics

Lobar Location
RUL Posterior B2b segment

Nodule Size
15 mm

Case Information

Navigation Time (min.)
14:00

Registration Time (min.)
1:05

Total Procedure Time (min.)
41:00

Fig.1. CT image showing peripheral RUL lesion
Fig.2. MONARCH™ integrated camera view showing small airway hole penetrated by needle transitioning nodule from eccentric to concentric
Fig.3. Concentric radial EBUS view

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Fig. 4

Fig. 5

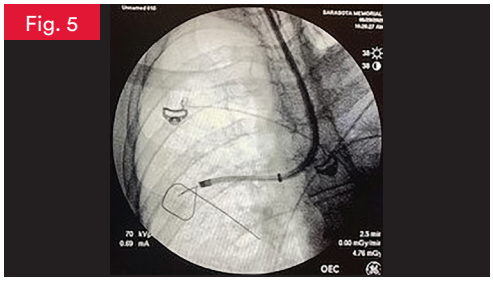
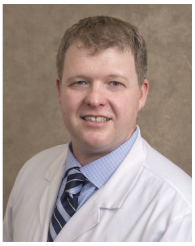


Fig.4. Dr. Seaman performing the MONARCH™ Bronchoscopy
Fig.5. Fluoroscopic view of the MONARCH™ Bronchoscope

Conclusion

Using the MONARCH™ Platform, I was able to visualize and plan my approach to access the target lesion. Once an optimal approach was created, we used the needle to traverse the bronchial wall and access the lung parenchyma. This approach allowed for access to the lesion and provided a diagnosis of adenocarcinoma. The value of VISION the MONARCH™ allowed me was something that lacked for the two previously non-diagnostic procedures. With this diagnosis the patient will now be able to discuss personalized treatment options, instead of "watch and wait" as his nodule potentially continued to increase in size.

> *The value of VISION the MONARCH™ Platform provided me was something that lacked for two previously non-diagnostic procedures.*
>
> – Dr. Joseph Seaman



About Jospeh Seaman, MD

Dr. Seaman is an Interventional Pulmonologist at Sarasota Memorial Hospital

Bronchoscopy Indications for Use: The MONARCH™ Platform and its accessories are intended to provide bronchoscopic visualization of and access to patient airways for diagnostic and therapeutic procedures.

Bronchoscopy Important Safety Statement: Complications from bronchoscopy are rare and most often minor, but if they occur, may include breathing difficulty, vocal cord spasm, hoarseness, slight fever, vomiting, dizziness, bronchial spasm, infection, low blood oxygen, bleeding from biopsied site, or an allergic reaction to medications. It is uncommon for patients to experience other more serious complications (for example, collapsed lung, respiratory failure, heart attack and/or cardiac arrhythmia).

This document reflects the techniques, approaches and opinions of the individual physician. This Ethicon sponsored document is not intended to be used as a training guide. Other physicians may employ different techniques. The steps demonstrated may not be the complete steps of the procedure. Individual physician preference and experience, as well as patient needs may dictate variation in procedure steps. Before using any medical device, review all relevant package inserts with particular attention to the indications, contraindications, warnings and precautions, and steps for use of the device(s).