

Diagnosis of 15mm Posterior RUL Peripheral Nodule

Dr. Joseph Seaman / Sarasota Memorial Hospital

CASE STUDY



Fig 1. CT image showing peripheral RUL lesion

NODULE CHARACTERISTICS

Lobar Location
RUL Posterior B2b segment

Nodule size
15mm

Registration Time
1:05

Navigation Time
14:00

Total Procedure Time
41:00

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 13mm 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 15mm over the course of the next 18 months, and so a MONARCH® Bronchoscopy was scheduled to diagnose this nodule.

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**).

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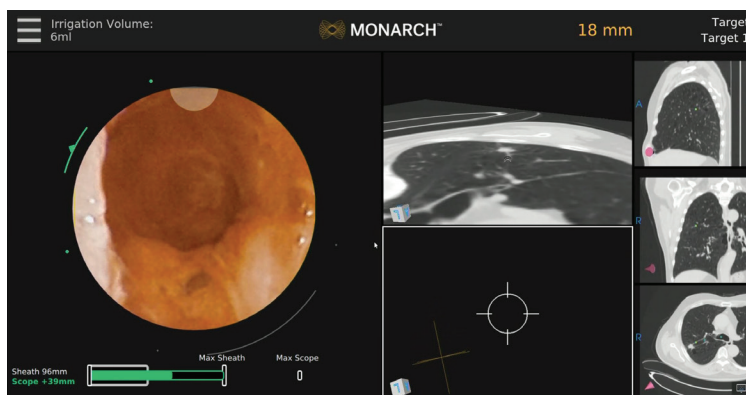


Fig 2. MONARCH® integrated camera view showing small airway hole penetrated by needle transitioning nodule from eccentric to concentric

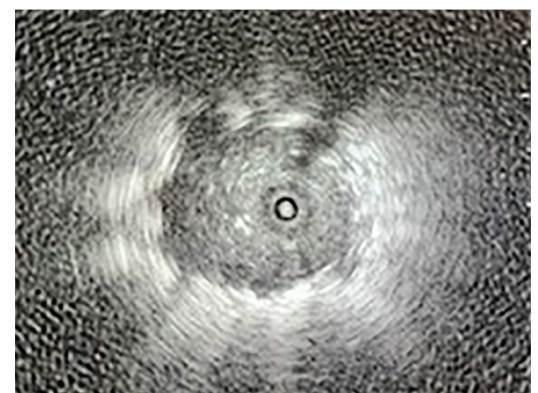


Fig 3. Concentric radial EBUS view



Fig 4. Dr. Seaman performing the MONARCH® Bronchoscopy

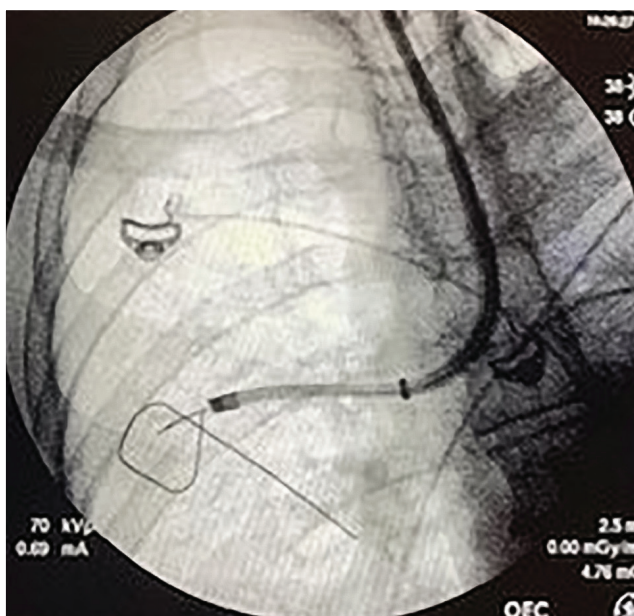
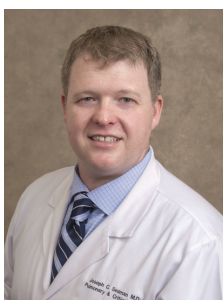


Fig 5. Fluoroscopic view of the MONARCH® Bronchoscope

CONCLUSIONS

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.



Dr. Joseph Seaman
Sarasota Memorial Hospital
Interventional Pulmonologist

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.

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).

