Discussion to: Complete resection of left paratracheal nodes for stage IIIA disease can be achieved with robotics during left upper lobectomy after induction therapy

Dr. Philicia Moonsamy, MD MPH, Presenter, Dr. Robert Merritt, MD, Invited Discussant

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Unidentified Speaker 1:

I would like to invite Robert Merritt from the Wexner Medical Center to give us a comment, please.

Dr. Robert Merritt (Columbus, OH):

Thank you. I'd like to thank the association for the opportunity to discuss this wonderful video. Fantastic job, Dr. Moonsamy. This is obviously a very technically challenging case. I think most of us would probably do this with an open thoracotomy. But I really like your strategy of getting proximal and distal vascular control and also kind of taking the vein, the other PA branches, and the
bronchus prior to taking on the truncus. So, a wonderful job. And also Dr. Maltese would have been proud that you covered the bronchus with an intercostal muscle flap. So, fantastic job. So, I have a couple of questions. I noticed there was a lot of fibrosis around the proximal left pulmonary artery. If you were not able to dissect that completely safely, what would be your strategy to get proximal control in that case?

Dr. Philicia Moonsamy (Boston, MA):

A couple of things. So, which we discussed in this case, too, is going intrapericardial and getting more proximal control intrapericardially. I've not had any experience doing that robotically. So, we probably would have converted open to do that. And that was definitely something we assessed during the case. But we were able to get enough length proximally, especially by doing that lymph node dissection really completely to get around the PA. So, we felt that it was safe. And of course, in the very extreme cases, you could take down the ligamentum arteriosum to really increase exposure there. Which again, I think we would have converted to open to doing that. And again, that's totally fine.

Dr. Merritt:

Absolutely.

Dr. Moonsamy:

I'm not advocating for robotics always, but a safe dissection.

Dr. Merritt:

No, I agree, 100%. And the other question is what was the time interval between the radiation and the surgery? Typically, we like to get the surgery done within 6 weeks of completion of the radiation.

Dr. Moonsamy:

Yes, he was four weeks.

Dr. Merritt:
Okay, perfect. And then, in general, what is the conversion plan when you're doing a robotic lobectomy or other lung resection and you get into a pulmonary artery injury, what is your kind of strategy for converting to open?

Dr. Moonsamy:

Of course, first, control the bleeding, especially utilizing your bedside assistant. Get a sponge stick in there and get that assistant port open as quickly as possible to get a sponge stick in there. And once the bleeding is controlled, get your anesthesia team involved, get blood in the room, communicate with your team to explain to everyone what's happening first. And then in a controlled fashion convert to open and take care of the bleeding with the procedures that we just discussed with getting proximal distal control and so on and so forth. So, I think communication is key. Getting control of the bleeding early is key rather than fumbling to make the thoracotomy. And then controlling the bleeding in a controlled fashion.

Dr. Merritt:

Excellent. And then finally, yeah, I agree with your take home message, converting to open thoracotomy in these tough induction cases is not a failure. It's just doing the right thing. You're doing what is safe for the patient. So again, fantastic presentation enjoyed our review and the video. Thank you.

Dr. Moonsamy:

Thank you.

Unidentified Speaker 1:

Okay, we have two more questions, please.

Dr. Mike Jaklitsch (Boston, MA):

Hi, Mike Jaklitsch from Boston. I want to congratulate you on a technical tour-de-force, and I like watching your video. I just want to rise for clarity on the word choice. So, the title of the talk was Complete Resection of Left Paratracheal Nodes. And I was interested to see how you do that in a robot. But I'm not sure that you did that. It looks like you took out the lower 4L node, in which case, was that in doubt that you could do that with the robot? And then secondly, can you do the 2L nodes with the robot? And then when are we going to see a series that we can judge the safety of that? Thanks.
Dr. Moonsamy:

Thank you. Thank you. Getting the 2L node, I've not seen anyone do that. I don't have any experience in that. We're going to have to ask Dr. Schumacher about that since she's the expert in this. But I don't think it would be technically feasible in the way that we did it. The wording you were right, it was really the AP window and tracheobronchial nodes that we got out. In general, we were focusing here on the nodes that we knew were positive that we showed preoperatively that we showed had squamous cell in it to really get those nodes out and get a good dissection of those since we knew that the patient still had some lymphadenopathy there after the mediastinal radiation. And also, of course, this patient didn't get IO, which is another topic that we could talk about in this patient, obviously now with the standard of care would be IO with chemo rather than the treatment that he got. But he kind of predated a little bit the CheckMate 816 results.

Dr. Abbas Abbas (Providence, RI):

Ababs Abbas from Brown University, Dr. Moonsamy, excellent video really enjoyed it, really masterful editing. I'll actually expand on what Dr. Jaklitsch said, how were you confident that you did actually get 4L not just a larger catchment of the station 5 lymph node? Sometimes we do have to divide the ductus, the ligamentum arteriosum, in order to actually expose and retract the PA inferiorly. You already had the vessel loop around it so you could have retracted that down and really gone in that space to expose the trachea. And I believe you could have actually taken that dissection upward even advantageously with the robot because of the insufflation you can actually get a wider dissection and maybe get a more complete paratracheal nodal dissection, but overall excellent case stuff.

Dr. Moonsamy:

Thank you.

Dr. Abbas:

Tough dissection. Thank you.

Dr. Moonsamy:

Thanks.

Unidentified Speaker 1:
Okay. [inaudible] question.

Dr. Todd Demmy (Buffalo, NY):

Yeah. Just one quick comment. Todd Demmy, Buffalo. I just wanted to say that this is a very nice presentation. But once you divide the bronchus, that's the tether that's taking all the force off the PA. And you have to be very careful dividing it because I just recently did that maneuver even with a proximal control, and after the stapler came off, the tear on the undersurface extended into the pericardium and he had crash and pump. So, it does happen—

Dr. Moonsamy:

Absolutely.

Dr. Demmy:

--especially with [inaudible]. So, I think that's important to accentuate that. Thank you.

Dr. Moonsamy:

Yes, thank you for your comment.

Unidentified Speaker 2:

Hi. Congratulations. Paula from Boston, really quick. So according to the ISOC definition, complete resection implies, of course, all the lymph nodes being negative. Going into this procedure, you didn't know if the 4L was positive or negative.

Dr. Moonsamy:

No.

Unidentified Speaker 2:

And the final pathology was?
Dr. Moonsamy:

It was positive.

Unidentified Speaker 2:

It was positive.

Dr. Moonsamy:

But we had a high suspicion that it was going to be.

Unidentified Speaker 2:

No, that's okay. I'm just saying that sometimes we forget that for the definition, this is not a complete resection because lymph nodes are part of that definition not just margins. But great video.

Dr. Moonsamy:

Thank you.