Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

realization that much of what has become dogmatic in cardiothoracic surgical training has been uprooted and redefined during this unprecedented time. The pandemic has required that we as surgeons and educators step back and take a thoughtful look and approach to how we are training our trainees, both from a fund of knowledge and technical standpoint.

Previous reliance on spending hours on the wards and in the operating room has become challenging in many training programs as a result of COVID-19. This has pushed our trainees into realizing the utility of the multiple online platforms that are available to them as described by Luc and Antonoff.[1] As the authors imply, taking this to the next level allows for the bridging of geography and institutional boundaries through the use of multimedia platforms. Multiple examples of this have been implemented on a small scale; for example the training program at MD Anderson is broadcasting their "debate style" journal club electronically for increased participation outside of the home institution. This concept of educational open access across cardiothoracic training programs can only strengthen the depth and breadth of experiences to which our trainees are exposed. Additionally an added bonus of these experiences is the ability of our trainees to "virtually meet" each other across the country, providing important networking opportunities that will only enhance their careers moving forward.

The vision of the Thoracic Educational Cooperative Group is that with multiinstitutional collaborative efforts we can accomplish more, and the critical importance of this type of educational strategy has never been more important. We agree with the Thoracic Educational Cooperative Group, Luc, and Anfonoff: Through every storm there is a silver lining. COVID-19 has shown us that as a specialty we can be stronger and more impactful with our educational efforts through collaborative efforts built out of necessity in the setting of a global pandemic. The ability to bridge geography, institutional boundaries, and previously held surgical educational dogma is now.

Amy G. Fiedler, MD

Cardiothoracic Surgery
University of Wisconsin
600 Highland Ave
MC3236
Madison, WI 53792
email: amygfiedler@gmail.com

References

1. Luc JGY, Antonoff MB. Necessity is the mother of innovation—the time to collaborate is now (letter). *Ann Thorac Surg*. 2020;110:2107.
2. Lewis EE, Taylor LJ, Hermsen JL, McCarthy DP, Fiedler AG. Cardiothoracic education in the time of COVID-19: how I teach it. *Ann Thorac Surg*. 2020;110:362-363.

Thoracic Surgery for Malignancy and Emergency Irrespective of COVID-19

To the Editor:

Two months have passed since the spread of the coronavirus disease 2019 (COVID-19) pandemic. In our editorial,[1] we reported that until March 24, 2020, a COVID-19 test by nasopharyngeal swab was offered to the patients presenting with symptoms of COVID-19. However, from April 2, 2020, we changed that policy, offering 2 COVID-19 tests by nasopharyngeal swab to everyone undergoing thoracic surgery for malignancies before admission to our general university hospital, even if asymptomatic. Just in case both tests were negative for severe acute respiratory syndrome coronavirus-2, we admitted the patient. This measure may have improved the safety for patients and health givers. Moreover, during the period between the end of February and May 3, 2020, among the 203 patients admitted to our division for surgery, none developed COVID-19, except 1 patient who presented with COVID-19, 45 days after surgery and 39 days after the discharge.

Giulio Maurizi, MD
Erino Angelo Rendina, MD

Division of Thoracic Surgery
"Sapienza" University of Rome
"Sant'Andrea" Hospital
Via di Grottarossa, 1035
00189 Rome, Italy
email: giuliomaurizi@libero.it

Reference

1. Maurizi G, Rendina EA. A high-volume thoracic surgery division into the storm of the COVID-19 pandemic. *Ann Thorac Surg*. 2020;110:353-354.

Thoracic Surgical Oncology in Lombardy: How to Do It During COVID-19 Time?

To the Editor:

The health emergency from coronavirus disease 2019 (COVID-19) requires special attention to lung cancer (LC) patients, vulnerable by tumor disease or by the effects of oncologic treatment and radiotherapy. Delayed LC operations could cause LC progressions with tumors that are no longer resectable. In stage I LC, a time-to-treat of more than 8 weeks was associated with a reduction in 5-year survival; in stage III LC, a lag between neoadjuvant therapy and surgery of more than 3 months was associated with shorter median survival.[1,2]

In March 2020, to avoid the complete stop of oncologic surgical procedures, Lombardy designed a hub system that diverted all cancer patients to our Comprehensive Cancer Centre. Until April 10, 2020, all in our institution patients received an extensive COVID-19–related history interview, but the swab test was done only in symptomatic patients. Nonetheless, this approach resulted in a biased selection.

Despite the current lack of robust data,[3] our Thoracic Surgery Division (first as volume and delivered quality in Italy) decided on testing for a baseline COVID-19 swab all LC surgical patients. The aim was to maintain, during COVID-19 epidemic, high-volume LC operations with well-established protected protocols and pathways.

From April 10, 2020, to date, even after a negative triage with temperature and medical history, in the days before hospital admission, COVID-19 swabs were tested for 58 entirely asymptomatic patients scheduled for endobronchial ultrasound or LC surgery. Of these, 7 patients (12.1%) had a swab positive for COVID-19 and were rescheduled for surgery.

In conclusion, our initial clinical evidence supports the mandatory use of the COVID-19 swabs as a screening tool in all asymptomatic patients who should undergo LC operations. The COVID-19 grid search in LC patients could decrease the in-hospital transmission (eg, indirect transmission between patients using the same bathroom with standard disinfection). Besides, the early identification of asymptomatic COVID-19

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patients could also avoid severe postoperative respiratory complications related to COVID-19 and could protect the health workers, maintaining real COVID-19–free departments.

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Luca Bertolaccini, MD, PhD

Department of Thoracic Surgery
IEO, European Institute of Oncology
IRCCS
Via Ripamonti 435
20141 Milan, Italy
email: luca.bertolaccini@gmail.com

Lorenzo Spaggiari, MD, PhD

Department of Thoracic Surgery
IEO, European Institute of Oncology
IRCCS
Milan, Italy
and
Department of Oncology and Hemato-Oncology
University of Milan
Milan, Italy

References

1. Thoracic Surgery Outcomes Research Network, Inc. COVID-19 guidance for triage of operations for thoracic malignancies: a consensus statement from Thoracic Surgery Outcomes Research Network. *Ann Thorac Surg*. 2020;110:692-696.
2. Bertolaccini L, Spaggiari L. The hearth of mathematical and statistical modelling during the coronavirus pandemic. *Interact Cardiovasc Thorac Surg*. 2020;30:801-802.
3. Passaro A, Peters S, Mok TSK, Attili I, Mitsudomi T, de Marinis F. Testing for COVID-19 in lung cancer patients. *Ann Oncol*. 2020;31:832-834.

Mechanical Heart Valves Require Warfarin: No News Is Good News?

To the Editor:

The need for lifelong anticoagulation therapy with vitamin K antagonists is the Achilles heel of mechanical heart valves. Numerous attempts have been made to use direct oral anticoagulants for these patients to avoid the need for regular coagulation checks, but these have not yet obtained the desired results (eg, the Randomized, Phase II Study to Evaluate the Safety and Pharmacokinetics of Oral Dabigatran Etexilate in Patients After Heart Valve Replacement [RE-ALIGN] trial).

Probably, these negative results, and the reduced number of patients requiring an mechanical heart valve, have inhibited the emergence of new studies aimed at evaluating direct oral anticoagulants in this population. Very recently, a study by Jaffer and colleagues[1] has demonstrated the reasons that led to the failure of the RE-ALIGN trial, in part related to drug dosage. The results of this study led to the conclusion that patients receiving a mechanical heart valve are still forced to undergo vitamin K antagonist therapy. This outcome is experienced by many patients as a certain condemnation to serious complications, because that is how life is envisaged for them by the same doctors, who describe life under vitamin K antagonists as like trying "to navigate the treacherous waters between Scylla and Charybdis."[2]

We believe that the results of Jaffer and colleagues[1] should not be considered as a defeat but rather as a stimulus to the preparation of new trials using direct oral anticoagulants in patients with mechanical heart valves. Indeed, the possibility of home coagulation self-measurement—information that patients often do not receive—and the new international normalized ratio targets that significantly reduce bleeding risks[3] by not increasing thromboembolic risks, should make mechanical heart valves be considered as a viable alternative, especially in younger patients. In these patients, biological prostheses are increasingly invasive, although few studies have been published to date with long follow-ups, and it should not be forgotten that, even in the recent past, some biological models have not kept the promises made in terms of structural valve degeneration.

Giuseppe Santarpino, MD

Anthea Hospital
GVM Care and Research
Via Camillo Rosalba 35/37
Bari 70124, Italy
and
Department of Cardiac Surgery
Paracelsus Medical University
Nuremberg, Germany
and
Cardiac Surgery Unit
Department of Experimental and Clinical Medicine
University Magna Graecia
Catanzaro, Italy
email: gsantarpino@gvmnet.it

Pasquale Mastroroberto, MD

Cardiac Surgery Unit
Department of Experimental and Clinical Medicine
University Magna Graecia
Catanzaro, Italy

References

1. Jaffer IH, Fredenburgh JC, Stafford A, Whitlock RP, Weitz JI. Rivaroxaban and dabigatran for suppression of mechanical heart valve-induced thrombin generation. *Ann Thorac Surg*. 2020;110:582-591.
2. MacGillivray TE. Invited commentary. *Ann Thorac Surg*. 2020;110:590-591.
3. Torella M, Torella D, Chiodini P, et al. Lowering the intensity of oral anticoagulant therapy in patients with bileaflet mechanical aortic valve replacement: results from the "LOWERING-IT" trial. *Am Heart J*. 2010;160:171-178.

Kommerell's Diverticulum and Early Endovascular Treatment

To the Editor:

In their recent and interesting article, Li and colleagues[1] reported their clinical case on the total endovascular treatment of a 39-year-old man with a 1-year history of Kommerell diverticulum

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