



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.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

COVID-19 should enter the differential diagnosis of postoperative complications after thoracic surgery.

References

1. Guan WJ, Ni ZY, Hu Y, Liang WH, Ou CQ, He JX, et al. Clinical characteristics of coronavirus disease 2019 in China. *N Engl J Med*. 2020;160:585-92.e2.
2. Peng S, Huang L, Zhao B, Zhou S, Braithwaite I, Zhang N, et al. Clinical course of coronavirus disease 2019 in 11 patients after thoracic surgery and challenges in diagnosis. *J Thorac Cardiovasc Surg*. 2020;160:585-92.e2.
3. Xu Y, Liu H, Hu K, Wang M. Clinical management of lung cancer patients during the outbreak of 2019 novel coronavirus disease (COVID-19) [article in Chinese]. *Zhongguo Fei Ai Za Zhi*. 2020;23:136-41.
4. Liang W, Guan W, Chen R, Wang W, Li J, Xu K, et al. Cancer patients in SARS-CoV-2 infection: a nationwide analysis in China. *Lancet Oncol*. 2020;21:335-7.
5. Centers for Disease Control and Prevention. Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19); Available at: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>. Accessed March 26, 2020.

See Article page 585.



Commentary: The double responsibility of the thoracic surgeon at the time of the pandemic: A perspective from the North of Italy

Marco Scarci, MD, FRCS(Eng), FCCP, FACS,^a and Federico Raveglia, MD^b

The rapid spread of the coronavirus disease 2019 (COVID-19) pandemic in the north of Italy at the end of February 2020 has taken the local health care system by surprise because of the exponential increase in the number of daily cases and sheer number of those needing admission to intensive care units.¹ In the emergency, with hospitals' services being reconfigured, thoracic surgeons still tried to maintain a more or less regular operating schedule amid uncertainties regarding the safety of the patients and health care operators.^{2,3} Although China was ahead of us in terms of experience, there were no data available regarding thoracic surgery and the potential postoperative increase in morbidity and mortality.

The first meaningful evidence emerging from this study is the proportion of severe and critical disease between

From the ^aDepartment of Thoracic Surgery, ASST Monza, San Gerardo Hospital, Monza; and ^bThoracic Surgery, ASST Santi Paolo e Carlo, Ospedale San Paolo, Milano, Italy.

Disclosures: Authors have nothing to disclose with regard to commercial support. Received for publication April 6, 2020; accepted for publication April 6, 2020; available ahead of print April 10, 2020.

Address for reprints: Marco Scarci, MD, FRCS(Eng), FCCP, FACS, Department of Thoracic Surgery, S. Gerardo Hospital, Via G. Pergolesi, 33, Monza, Italy (E-mail: marco.scarci@mac.com).

J Thorac Cardiovasc Surg 2020;160:595-6
0022-5223/\$36.00

Copyright © 2020 by The American Association for Thoracic Surgery
<https://doi.org/10.1016/j.jtcvs.2020.04.003>



Marco Scarci, MD, FRCS(Eng), FCCP, FACS, and Federico Raveglia, MD

CENTRAL MESSAGE

Insidious diagnosis and high fatality rate of COVID-19 require special management of patients referred to thoracic surgery. Maximum in clinical surveillance and preoperative selection are mandatory.

thoracic surgery patients and the whole COVID population, which was 27.3% and 36.4% versus 2% and 13.8%, respectively, strongly suggesting the possibility that surgery, in itself, can negatively affect outcomes. These data seem to be consistent with general surgery.^{4,5}

In the present issue of the *Journal*, Peng and colleagues⁶ are to be congratulated as they focus on identifying the diagnostic challenges in the early postoperative management of patients diagnosed with COVID-19. The most important alert is that, in addition to its variable incubation period, signs and symptoms of infection often coincide with normal postoperative ones, making realistic a delay of about 8 and 4 days for suspicion of viral pneumonia and confirmed diagnosis. It should be particularly emphasized that 5 of 11 cases had misdiagnosis at first

postoperative computed tomography scan.^{7,8} This implies delays in treatment and greater risk of spreading the infection. We observed a similar pattern, and negative outcomes, in our patients. All thoracic surgeons should be aware that the virus is present in the community way before the official confirmation from health care authorities; thus, vigilance is mandatory.

Another important point addressed is the attempt to identify prognostic factors. The main problem remains the relatively poor specificity of blood count and clinical biochemistry changes. On the contrary, significance of the number of resected segments, if confirmed, could be a very precious indicator. Although anatomical lung resections are still the gold standard for tumors larger than 2 cm, one wonders if, in the period of pandemic, a risk-comparison between cancer recurrence versus increased mortality due to COVID-19 infection is appropriate and if wedge resection should be considered.

These postoperative prognostic factors could be helpful in promptly identifying patients at greater risk and rapidly escalate treatments such as pre-emptive intensive care unit admission.

This article has certainly the merit to raise awareness of the problem among the thoracic surgical community; unfortunately, the small sample size and the heterogeneity of surgical interventions (lung and esophageal cancer,

non-malignant diseases) weakens the recommendations that can be drawn.

Therefore, although the data presented here are not conclusive, they help to set the basis for a multicentric case series, with identification, on a larger sample, of pre- and postoperative prognostic factors that can help surgeons to make the right decisions in this difficult scenario.

References

1. Day M. Covid-19: Italy confirms 11 deaths as cases spread from north. *BMJ*. 2020; 368:m757.
2. Iacobucci G. Covid-19: all non-urgent elective surgery is suspended for at least three months in England. *BMJ*. 2020;368:m1106.
3. Li X, Liu M, Zhao Q, Liu R, Zhang H, Dong M, et al. Preliminary recommendations for lung surgery during 2019 novel coronavirus disease (COVID-19) epidemic period [article in Chinese; Abstract available in Chinese from the publisher]. *Zhongguo Fei Ai Za Zhi*. 2020;23:133-5.
4. Aminian A, Safari S, Razeghian-Jahromi A, Ghorbani M, Delaney CP. COVID-19 outbreak and surgical practice: unexpected fatality in perioperative period. *Ann Surg*. 2020;272:e27-9.
5. Ong S, Khee TT. Practical considerations in the anaesthetic management of patients during a COVID-19 epidemic. *Anaesthesia*. 2020;75:823-4.
6. Peng S, Huang L, Zhao B, Zhou S, Braithwaite I, Zhang N, et al. Clinical course of coronavirus disease 2019 in 11 patients after thoracic surgery and challenges in diagnosis. *J Thorac Cardiovasc Surg*. 2020;160:585-92.e2.
7. Li Y, Xia L. Coronavirus disease 2019 (COVID-19): role of chest CT in diagnosis and management. *AJR Am J Roentgenol*. 2020;214:1280-6.
8. Ye Z, Zhang Y, Wang Y, Huang Z, Song B. Chest CT manifestations of new coronavirus disease 2019 (COVID-19): a pictorial review. *Eur Radiol*. March 19, 2020 [Epub ahead of print].