Global infections, local solutions: a guide for thoracic surgeons

We are excited to bring you this focused issue for the *Journal of Thoracic Disease* on "Medical and Surgical Management of Pulmonary Infections." One of the specialty challenges for thoracic surgeons practicing in the Western world is the management of complex or uncommon pulmonary infections. With the increasing ease of global travel and relocation, however, travelers and new citizens are returning with infections that practicing thoracic surgeons have only read about in textbooks or journals. Tuberculosis (TB) sanitoriums may be of historical interest but the patient presenting with a cavitary apical lesion and greater than twenty-pack year smoking history is a current problem at some of our hospitals. General thoracic surgeons need to know how to take an evidence-based approach to management of these problems.

As Eddy and colleagues point out in this issue, there is a worldwide resurgence of TB, increasingly drug-resistant, with a latent reservoir exceeding a billion people globally. It frequently causes disease in the immunocompromised, a population which not infrequently presents with other thoracic issues. Lung cancer screening is being conducted in folks with smoking history but also coincidentally with a history of TB, and Parker and colleagues provide guidelines for distinguishing cancer and TB in the suspicious cavitary or fibrotic lesions. TB can be complicated by massive hemoptysis but more often a concomitant aspergilloma is the culprit. Although the causes of massive hemoptysis have varied over time, the most common causes include bronchiectasis, TB, mycetomas, necrotizing pneumonia and lung cancer. In the bronchiectasis review Hiramatsu and Shiraishi inform us that the global incidence and prevalence of bronchiectasis in adults has steadily increased. Although Gupta and colleagues provide an interventional radiology perspective on the application and outcomes of embolization to control massive hemoptysis and remind us that aspergillomas represent the highest in-hospital mortality risk in the infection category, there continues to be a role for surgery to control hemoptysis. Pulmonologist O'Donnell writes about the medical management of bronchiectasis and emphasizes the clinical relevance for high income countries. She notes that in 2005, it was estimated that there were at least 100,000 individuals in the United States who had bronchiectasis unrelated to cystic fibrosis and that the prevalence is increasing about 8.74% per year.

Medical management may be appropriate for some of these infections, but surgeons need to know the indications for operative intervention and the best approaches. Controversial areas include the role of thoracoscopic resection for pulmonary hydatid cysts given the risk of spillage of scolices and subsequent anaphylaxis. Thoracotomy for enucleation of these cysts probably should be considered the standard of care except in cases of small easily resectable lesions.

We have asked our contributors to summarize for the thoracic surgical community the management of the increasingly more common pulmonary infections including TB, bronchiectasis and certain fungal infections. Thank you to our contributors. We hope you will enjoy this issue!

Acknowledgements

None.

Journal of Thoracic Disease, Vol 10, Suppl 28 October 2018



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Cite this article as: Litle VR, Mitchell JD. Global infections, local solutions: a guide for thoracic surgeons. J Thorac Dis 2018;10(Suppl 28):S3376-S3377. doi: 10.21037/jtd.2018.09.40