

## Opportunities and Challenges in Thoracic Surgery in India

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### ABSTRACT:

When it comes to the prevalence of lung illness, India tops the list as the country with the unenviable position of being rated first worldwide. Surgical intervention is an option for the treatment of a significant amount of this disease load. However, due to a variety of barriers, patients have restricted access to thoracic surgical care that is of sufficient quality. This review article provides a summary of the challenges that exist in this emerging surgical profession in the world's second most populous country as well as the potential that are implied by those challenges.

**Keywords:** Thoracic surgery; lung surgery; India.

### INTRODUCTION:

The areas of cardiac surgery, general thoracic surgery, and vascular surgery are the three subspecialties that make up the field of cardiothoracic and vascular surgery. During the beginning phases of evolution, the same individuals were active in all three of these sectors at the same time. This is the situation in a number of practice settings all across the world right at this very moment. On the other hand, when each field matured and developed, it gave rise to sub-specialization as well as specific training programs, clinical product lines, and academic departments, and the order in which these things appeared was not always the same. The cardiothoracic surgery departments in India began in a comparable manner; however, over the course of the past three decades, they have transitioned into cardiac surgery departments with limited emphasis on and clinical involvement in general thoracic surgery. This article documents the need for general thoracic surgery in India to emerge as a unique surgical specialty, as well as the challenges and prospects for such an evolution. The essay also examines the current state of the speciality in India.

### DISEASE BURDEN:

As a result of significant underreporting, India does not have accurate statistics regarding the burden of disease. In spite of these caveats, the Global Burden of Disease Study 2013 (which may be found at <http://www.healthdata.org>) provides some numbers that are illustrative of the

problem. In comparison to the rest of the globe, India has a high prevalence of lung pathologies that are not caused by cancer (1). This comprises devastating disorders of the respiratory system such as chronic obstructive pulmonary disease (COPD), asbestosis, pneumoconiosis, and others.

In India, the prevalence of lung cancer is significantly lower than the global average. This could be related, in part, to the fact that the average Indian has a shorter life span than people in Western cultures do. On the other hand, the median age at which lung cancer is diagnosed in India is only 56 years old, which is a substantial amount younger than the age at which it is diagnosed in the United States, which increases the negative influence that this disease has on the productivity of the country (2).

### **ISSUES, POSSIBILITIES, AND POTENTIAL SOLUTIONS:**

There is an alarming lack of available workers in the medical sector in India, which is surprising given the country's massive population. Because there are not enough good statistics, the true scarcity cannot be accurately quantified. However, based on the author's own personal experience, it is extremely difficult for a patient who is suffering from lung issues to gain access to the services of a professional thoracic surgeon within what is regarded as a normal travel distance.

Even accounting for the demand for general thoracic surgery, the number of cardiothoracic surgeons who are now in practice is insufficient to meet the requirements of cardiac surgery alone. As a result, there is a pressing need to increase the number of trainees and discover ways to entice the most qualified individuals to work in this vitally essential therapeutic sector. In order to do successful thoracic surgery, the nursing staff, respiratory therapists, physical therapists, and biomedical engineers all need to actively participate in the procedure. There is a significant opportunity available to improve the qualifications of allied health personnel as well as their overall performance.

In India as a whole, there is a difficulty with reasonably priced medical treatment. When opposed to the average of 10.2% that is spent on healthcare in the majority of other countries, India spends only a pitiful 2–4% of its GDP on medical care. Additionally, the majority of the costs associated with medical care are paid for by personal resources. Anguish has been voiced in the media about the misery of the patient in these circumstances; however, it is crucial to highlight the plight of the physician who is attempting to provide a minimum of good care despite these financial limits. This is an important point to emphasize. Patients who are in higher social brackets tend to have less severe manifestations of this condition. Patients in this category are nonetheless mindful of their financial situation. Even in relative terms, the daily cost of a hospital bed in India is far lower than it is in the west. As a result, the reduction in length of stay by a couple of days does not outweigh the greater expense of the equipment and endo-staplers that are required for an anatomic resection. (3,4)

Unfortunately, a growing number of students graduating from general surgery programs are opting to pursue other types of careers, and as a result, a growing percentage of cardiothoracic residency seats have gone unfilled over the course of the past several years. The duration of CT surgical training, the absence of training paradigms that incorporate progressive operative responsibility, the extremely hierarchical nature of most practice positions, with inequitable distribution of income generated by group practices, and the decreased remuneration per case as a result of the proliferation of public health schemes are all factors that work against the popularity of CT surgical training. These training programs have only been around for about three years, and for the most part, they are completely separate from training for heart surgery. Because of this, there is a great opportunity to increase the number of people working in thoracic surgery across the country. There is a growing consensus among medical professionals and patients alike that thoracic surgery can be profitable for both the hospital and the individual surgeon performing the procedure.

The social stigma that is associated with cancer and tuberculosis presents a significant obstacle to receiving adequate medical treatment. The vast majority of patients and family members are reluctant to talk about either of these problems or to seek assistance for them. Extremely frequently, families will make the request to the physician that the patients themselves not be informed of the diagnosis. Because of this, there is a lot that can be done to raise awareness in India about the fact that these disorders can be treated. Nevertheless, it is controversial as to whether or not the absence of easily accessible legal redress reduces the accountability of physicians.

The healthcare systems in India are extremely lagging behind the rest of the world. There is still a long way to go despite the fact that conditions have vastly improved over the past few of decades. The majority of medical records are still written by hand, as the transition to electronic medical records is happening very slowly.

Outside of academic settings, true tumor boards that involve equal participation from all applicable doctors are extremely uncommon. The absence of comprehensive staging is especially problematic for lung cancer. The adoption of established paradigms that are prevalent in other countries should, on the other hand, be a significant step toward improving these system-based challenges.

## **CONCLUSIONS:**

In India, there is a significant quantity of surgically treatable lung cancer pathology; however, the great majority of patients do not have access to general thoracic surgeons who specialize in the field. In spite of all of the restrictions that have been discussed in this text, the requirements of the population present a significant opening for the quick development and maturation of this surgical specialty in India. Because of these constraints, the setting is one that compels creativity in order to address the one-of-a-kind difficulties faced by this vulnerable group.

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