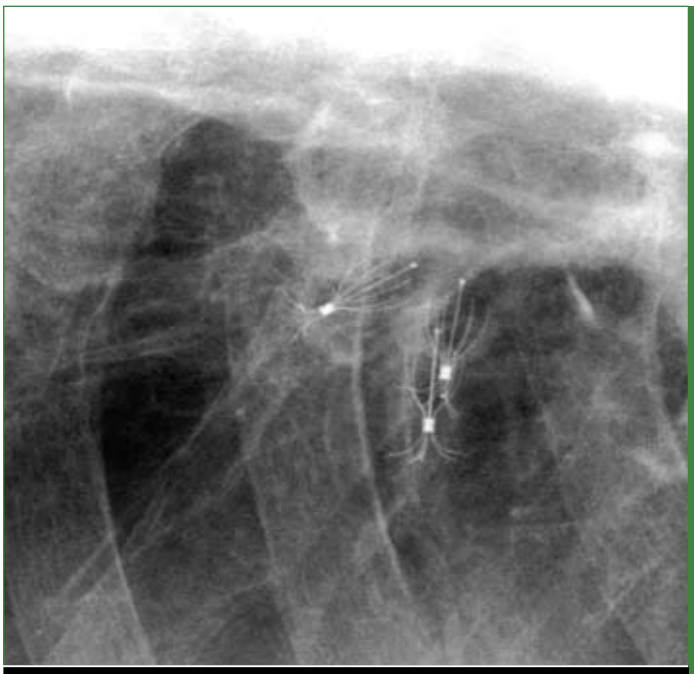
2 – 8 March 2009

Mount Sinai inside



A chest X-ray shows tentacle-like structures, known as the Intra-Bronchial Valve system, inside the lung. The valve system may help patients with chronic obstructive pulmonary disorder by improving air flow.

Stents for Lungs Show Promise

People suffering from chronic obstructive pulmonary disease (COPD) often face a future ruled by their condition, which turns simple activities like getting on the bus or crossing a room into a breath-sapping chore. For patients with this progressive lung disorder, there are often few treatment options available except surgery or a lung transplant.

A less invasive treatment may now be on the horizon thanks to Timothy Harkin, MD, Associate Professor of Medicine and Director of Bronchoscopy, (Pulmonary, Critical Care, and Sleep Medicine) and Neil Schachter, MD, Medical Director of the Respiratory Care Department and the Maurice Hexter Professor of Pulmonary Medicine.

"The idea behind the valve and our study is to replicate the results of surgery without putting very sick patients through the ordeal of surgery," says Dr. Harkin.

The two physicians are principal investigators on a study examining the potential therapeutic benefits of what is called the Intra-Bronchial Valve (IBV) system, which involves the insertion of several one-way valves between five and seven millemeters in diameter. The valve is a small, metal, umbrella-shaped device placed in the bronchial tree in the lung.

The valve works by allowing air to come out of areas of the lung that are too inflated because of tissue damage. This relieves the pressure on the adjacent healthy lung tissue and redirects air flow with each breath toward the healthier lung and away from parts of the lung that are not functioning. Inserting the valves requires a bronchoscopy, which is a less invasive, nonsurgical technique with no incisions that takes about an hour. An integral step involves measuring the airway to determine which of three different-sized devices to insert. Although the valves are intended to be permanent, they can be removed if necessary.

The Phase 3 randomized and double blinded clinical trial is looking at COPD patients who have emphysema in the upper part of the lungs and will compare them to patients who do not receive valves. Mount Sinai is one of 40 sites involved in the trial. Between 200 and 500 patients will be enrolled.

COPD is caused primarily by smoking and currently affects 12 million people in the United States. Worldwide, it is the fourth-leading cause of death, according to the National Heart, Lung, and Blood Institute.

"COPD has a very dismal prognosis, and doctors don't usually make a prognosis until the disease is far advanced," says Dr. Schachter. "The goal of the study is to prolong life and improve the ability of patients with moderate to severe COPD to live a better quality of life."

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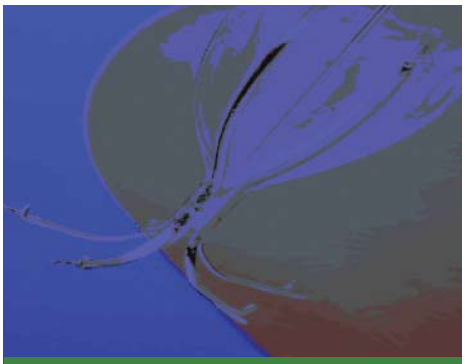
>
> — TIMOTHY HARKIN, MD



A close-up image of the Intra-bronchial Valve system on a fingertip