

## PLEURX PLEURAL CATHETER

*For Home Management of Malignant Pleural Effusions;  
Gentle & Effective Relief with Proven Performance*

Development of a malignant pleural effusion (MPE) is a common and problematic complication of malignant disease and is associated with significant morbidity and mortality. The average life expectancy after a diagnosis of an MPE nears 3-6 months. Consequently, the ideal approach to treatment should provide immediate and lasting resolution of symptoms with minimal side effects.<sup>1</sup> Traditionally, patients suffering from MPE have faced uncomfortable procedures and extended hospitalizations. The **Pleurx® Pleural Catheter**, developed and marketed by **Denver Biomedical** (Denver, CO), offers physicians an easier solution for managing MPE that provides relief from symptoms with an outpatient procedure and minimal discomfort.

The treatment of MPE has a primary aim of providing palliation of symptoms and producing pleurodesis to prevent re-accumulation of fluids. Treatment options include repeated therapeutic thoracentesis, chest tube drainage followed by instillation of a sclerosing agent, and thoracoscopy (1). While these procedures have demonstrated good success in improving symptoms, associated drawbacks and complications support use of the Pleurx catheter. Thoracentesis provides only brief relief of symptoms and requires frequent visits to a physician (1). Pleurodesis can be achieved with the instillation of a sclerosing agent either through chest drain or thoracoscopy (1). Talc has

become the agent of choice for the majority of doctors; however, this treatment remains controversial as reports of severe complications have been associated with it, including pain, fever, acute respiratory distress and, rarely, death (1,3).

One randomized multicenter trial compared the effectiveness of chest tube thoracostomy with talc slurry (TS) to surgical thoracoscopy with talc insufflation (TTI), assessing the safety and associated quality of life in 482 patients. The study concluded that, other factors being equal, the least intrusive method of palliation

in end-stage cancer patients should be chosen (3). Results revealed there was no difference between these two approaches in the rate of successful pleurodesis at 30 days (TS 71 percent; TTI 78 percent), but a significant mortality rate was observed for patients in both study arms (3). Adverse events (graded according to National Cancer Institute common toxicity criteria) (4), were noted and toxicity of at least grade 3 was experienced by 26 percent of



patients in the TS study arm and 32 percent in the TTI study arm. Dyspnea (TS, 16 percent; TTI, 16 percent) and pain (TS, 10 percent; TTI, 5 percent) were the most common toxicities (3). Seven treatment-related deaths were reported for TS (respiratory failure [n=5], cardiac [n=2]), and nine treatment-related deaths were reported for TTI (respiratory [n=6], cardiac [n=1], infection [n=2]) (3). Morbidity

predominantly included postprocedure fever, dyspnea, and pain. Incidence of these complications did not differ between the two study arms (3). Respiratory failure was observed in 4 percent of TS cases and 8 percent of TTI cases, accounting for five toxic deaths and six toxic deaths, respectively (3).

In addition to talc treatment requiring the surgical insertion of a chest tube, several days of hospitalization, a great deal of pain and significant costs, many patients are too debilitated to undergo this type of procedure (1,3). Further, these techniques are not appropriate for patients with trapped lung, which includes at least one-third of the patients with MPE (1). Todd L. Demmy, MD, Chair of Thoracic Surgery, Roswell Park Cancer Institute (Buffalo, NY) notes that the Pleurx catheter is “the preferred option when the lung isn't expected to achieve a successful pleurodesis, like when it's trapped, because the other options just won't work.”

A recent retrospective analysis noted the Pleurx catheter was effective in providing palliative relief to patients with MPE and that it offered several benefits compared to other approaches. The analysis further concluded that the Pleurx catheter should be considered as a first-line treatment option (1). Of 231 patient with successful insertion of the catheter who could be assessed at 2 weeks, 222 showed partial or complete improvement in symptoms (96.1 percent). Further, no other ipsilateral procedures were

necessary in 90.1 percent of the patents (1). Dr. Demmy notes that the Pleurx is a good option for patients who want a less painful therapy and shorter hospitalization. “Having a chest tube inserted is a more painful process. Patients still get some mild sedation with insertion of the Pleurx catheter, but it's a small tube and requires a less invasive incision. Overall, there is less discomfort for the patient than with other methods.”

William H. Warren, MD, Cardiothoracic Surgeon, Director Thoracic Surgery Rush University Medical Center (Chicago, IL), first began using the Pleurx catheter seven years ago because he listened to what his patients wanted. “The patients were demanding the Pleurx catheter. I was initially using it as a way of treating a malignant pleural effusion only after the patients already had a chest tube inserted along with either talc or some other agent to dry up the fluid. My patients said that if they had known about the Pleurx catheter, they would have opted for its use first.” Dr. Warren finds several advantages of the Pleurx catheter. “The biggest benefit is that it's inserted as an outpatient procedure under local anesthesia. It's important to patients that have this terminal condition to be able to go home. The second benefit is that it continues to drain long term. The chest tube and talc will drain for 3 days and then the tube is pulled out. If it works, that's fine, but the statistics show that at least 25 percent of the time the patient returns with another malignant

pleural effusion on the same side.” The Pleurx catheter is usually left in place for 3 to 4 weeks, or longer if necessary, and it continues to drain. Dr. Warren goes on to say, “overall, the Pleurx is safe, it is economical, and patients prefer it over a hospitalization. That, along with the fact that patients feel better immediately, is very important to patients who have end of life issues to face.”

Denver Biomedical Inc. is a leading designer, manufacturer and distributor of specialized medical products for fluid management of pleural effusion and ascites. The company's products are used in the outpatient setting and support home management of patient symptoms.

For more information about the Pleurx Pleural Catheter or Denver Biomedical, please call 1-800-824-8454, or visit the company's Web site at [www.denverbiomedical.com](http://www.denverbiomedical.com).

## References:

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