Management of malignant pleural effusions using the PleurX catheter.

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Abstract

BACKGROUND:

A malignant pleural effusion can cause significant morbidity to terminal patients. Drainage and control of the fluid can provide great palliation. Improving the quality of life for these patients on an outpatient basis is a worthy goal.

METHODS:

We have inserted 231 PleurX catheters into 202 patients with symptomatic malignant pleural effusions with the goal of treating the fluid on an outpatient basis. The catheters were drained at home, using vacuum bottles, every other day after an initial week of draining daily. No sclerosing agents were instilled. The catheters were removed when drainage was less than 50 mL/day. Primary tumor sites, irradiation to the hemithorax, and incomplete re-expansion of the lung were studied for their ability to predict prolonged drainage (over 100 days).

RESULTS:

In all cases, evacuation of the fluid with a PleurX catheter palliated the patient's symptoms. Overall, 134 of 231 (58.0%) catheters were removed after the drainage tapered off. Reaccumulation of the pleural effusion occurred in 5 of 132 (3.8%) patients. The incidence of infection was 5 of 231 (2.2%) and was usually limited to cellulitis at the insertion site. The incidence of blockage was 11 of 231 (4.8%) and was most common in patients with an underlying cancer at sites other than breast and gynecologic primaries. Drainage for more than 100 days was seen most often in patients who had incomplete reexpansion of the underlying lung (p < 0.001). Primary tumor site and irradiation did not have significant predictive value.

CONCLUSIONS:

Insertion of PleurX catheters is an effective way to treat patients with a malignant pleural effusion on an outpatient basis with a high degree of patient compliance and few complications. Overall, almost 60% of the catheters can be removed with a very low chance of reaccumulation, and without the need to instill a sclerosing agent. Even patients with a trapped lung can be palliated and released from hospital, although the likelihood of removing the catheter is small.

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