

Abstract:

Indwelling, tunneled catheter insertion for drainage of malignant ascites and pleural effusions in palliative care.

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Background

Ascites and pleural effusions are common conditions within palliative care. Both are associated with an impairment of quality of life and a significant symptom burden. Patients with recurring ascites/pleural effusion can be offered a permanent catheter, PleurX, to facilitate repeated drainage.

Aim

To do the preparatory work for being able to develop regional guidelines for how to treat patients within palliative care with ascites and pleural effusion as to offer this group of patients the best possible symptom relief. What competence is needed?

Methods

The study is divided into two parts; a literature study and a retrospective study of patients in Helsingborg/Ängelholm, who have received indwelling, tunneled catheters. The literature study is not a full systematic review. The most relevant articles have been chosen. The search has been done in PUBMED and Cochrane library with the search terms *palliative medicine, indwelling catheters, PleurX, ascites and pleural effusion*. 17 full text articles were included in the study.

Results

The literature study showed that indwelling catheters have become a more commonly used method for treating relapsing ascites and pleural effusion. Complications that can occur include infections, occlusion of the drain, leakage and catheter tract metastases. Most of them could be treated without removal of the catheter. The overall complication rate varied from about 6 to 30%.

There are no clear guidelines for the optimal treatment of malignant ascites, but when it comes to pleural effusion the guidelines are more distinct. Repeated aspiration, pleurodesis and insertion of indwelling catheters are different treatments of pleural effusion. Life expectancy, the nature of the fluid and local conditions decide which treatment to choose.

The clinical study included 16 patients with malignancy. Altogether 17 indwelling catheters were inserted, 12 abdominally and 5 in the pleural cavity. The catheters were inserted in the patient's home or at the palliative ward, without ultrasound guidance, by the same physician. There were no complications related to the insertion. The average age of the patients was 72 years. In the group with peritoneal catheters, mean length of catheter treatment was 40 days and for pleural catheters 32 days. 10 out of 16 patients died within one month after catheter insertion. One patient had his catheter removed due to complications, a peritoneal infection, which, however, was not considered to be related to the pleurX catheter.

Discussion

Several articles in my literature study compares the use of permanent catheters to repeated paracentesis, concluding that permanent catheters in many cases are more convenient and relieves symptoms in a better way. Over all the patients with longest survival seems to benefit most from permanent catheters.

My clinical study indicates that insertion of tunneled catheters can be safely performed in an outpatient clinic by a trained palliative care physician. The complications were rather few. The survival after catheter insertion varied widely and more than half of the patients died within one month. Some of these patients could most likely have been better handled with repeated paracentesis.

Conclusion

The articles found in my literature study and the small study from Helsingborg/Ängelholm all conclude that the use of indwelling, tunneled catheters is a safe way of treating ascites and pleural effusions in severely ill patients. It's use can improve the overall quality of life for these patients.

My study also indicates that indwelling, tunneled catheters can be safely inserted in the patient's home. The insertion of indwelling catheters is a quite easy procedure, which can be taught palliative physicians. The drainages can be done by nurses without special training and in some cases patients themselves or relatives. The selection of patients suitable for indwelling catheters, however, could be improved. To choose the right patient seems to be challenging and probably requires some experience of working with severely ill patients. All studies done in this topic are rather small and of limited scientific quality. Larger, randomized, prospective studies evaluating benefits and harms with treating malignant ascites and pleural fluid with permanent catheters would be of value.