

Commentary

The role of indwelling pleural catheter in management of malignant pleural effusion: A creative new technique for an old method

Filipe Moreira de Andrade^{1,2,3}

¹Department of Thoracic Surgery, Universidade Federal de Viçosa (UFV), Viçosa, Ubá, ²Department of Thoracic Surgery, Hospital Santa Isabel, Ubá, Minas Gerais, Brazil, ³Department of Surgery, Faculdade Governador Ozanam Coelho, Ubá, Minas Gerais, Brazil
E-mail: filipetorax@hotmail.com

In the paper titled “Indwelling pleural drain for mobile management of malignant pleural effusion - combining benefits of both methods: A case report”, the authors report an interesting method of using an ordinary intercostal drain as a permanent catheter to permit the mobilization of the patient without a collector bag or a recipient.^[1]

Malignant pleural effusion (MPE) accounts for 22% of all pleural effusions, with more than 150,000 new cases being diagnosed annually.^[2]

During the course of disease, 50% of patients with breast cancer, 25% with lung cancer, and more than 90% with mesothelioma develop symptomatic MPE.^[3,4] Although therapeutic thoracentesis provides effective symptom relief, most MPEs recur within a month, and it should not be the treatment of choice if patients have a performance status 1 or 2.^[5] Thoracentesis has a risk of pneumothorax, empyema and hemothorax, and the development of pleural adhesions is a possibility, that could make a subsequent thoracoscopy much more difficult.^[3]

The best option to prevent the recurrence of MPE is not scientifically established. Procedures available are the implantation of an indwelling pleural catheter (IPC) and the creation of a pleurodesis. A pleurodesis is created when a sclerosing substance is injected in the pleural space. This procedure may be done through a chest tube or during a video-thoracoscopy.

Indwelling pleural catheters are a valuable option when the objective is palliation, especially in cases where life expectancy is less than 3 months or lung trapping is present. Pleurodesis is the first choice of pulmonologists and thoracic surgeons for patients with expandable lung and good expectancy. However its over indwelling pleural catheters is still subject of debate.

One classic study regarding the indwelling pleural catheter randomized 144 patients with symptomatic

pleural effusions to receive an indwelling pleural catheter with intermittent drainage every 48 h, or doxycycline pleurodesis. The authors concluded that the indwelling pleural catheter was advantageous because it did not necessarily require hospitalization, with less costs and risk of complications to the patients.^[6]

In summary, the indwelling pleural catheter is a reasonable alternative to pleurodesis in many patients and appears to be associated with fewer days in hospital. There is no good evidence that pleurodesis via thoracoscopy is any more effective than pleurodesis via tube thoracostomy, albeit this being the feeling of most thoracic surgeons. Talc and silver nitrate are the agents used mostly for pleurodesis. However only large particle talc should be used.

This method, using a chest tube for long-term symptomatic relief is valuable and creative. However, specific devices already developed for this purpose that are easier and more intuitive to use should be recommended, if possible.

I consider that every institution should offer the best treatment option for each patient, and the use of well-established treatments cannot preclude the search for new and better methods. Moreover, one must consider regional differences in health-care assistance when planning the best treatment option in each case. Certainly choosing devices and materials that are not available in a specific region could retard the institution of treatment and in the case of MPE, a delay in such management must be avoided at all costs.

REFERENCES

1. Mehta D, Gupta A, Singhal S, Bansal S. Indwelling pleural drain for mobile management of malignant pleural effusion-combining benefits of both methods. *Lung India* 2015;32:64.
2. American Thoracic Society. Management of malignant pleural effusions. *Am J Respir Crit Care Med* 2000;162:1987-2001.
3. Roberts ME, Neville E, Berrisford RG, Antunes G, Ali NJ; BTS Pleural Disease Guideline Group. Management of a malignant pleural effusion: British Thoracic Society Pleural Disease Guideline 2010. *Thorax* 2010;65 Suppl 2:ii32-40.

Andrade: Malignant pleural effusion and its management

4. Anderson CB, Philpott GW, Ferguson TB. The treatment of malignant pleural effusions. *Cancer* 1974;33:916-22.
5. Burrows CM, Mathews WC, Colt HG. Predicting survival in patients with recurrent symptomatic malignant pleural effusions: An assessment of the prognostic values of physiologic, morphologic, and quality of life measures of extent of disease. *Chest* 2000;117:73-8.
6. Putnam JB Jr, Light RW, Rodriguez RM, Ponn R, Olak J, Pollak JS, *et al*. A randomized comparison of indwelling pleural catheter and doxycycline pleurodesis in the management of malignant pleural effusions. *Cancer* 1999;86:1992-9.

Access this article online

Quick Response Code:



Website:

www.lungindia.com

