Effect of an indwelling pleural catheter vs chest tube and talc pleurodesis for relieving dyspnea in patients with malignant pleural effusion: the TIME2 randomized controlled trial

Study Author(s)

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Publication

JAMA. 2012 Jun 13;307(22):2383-2389. doi: 10.1001/jama.2012.5535

Study Design

Unblinded, randomised controlled trial

Study Location

United Kingdom

Study Length

1 year follow up

Study Objective

"To determine whether indwelling pleural catheters (IPCs) are more effective than chest tube and talc slurry pleurodesis at relieving dyspnoea"

Key Endpoint(s)

The primary outcome was mean daily dyspnoea over the first 42 days as measured by a visual analogue scale (VAS)

Patient Population

Patients with malignant pleural effusion who had not previously undergone pleurodesis

Treatment

Patients were randomised to either IPC (N = 52) or talc (N = 54)

Key Findings

- Median number of days with observed VAS scores was 41 in both groups
- No significant difference in dyspnoea during the first 42 days
- Dyspnoea improved for both groups
- Significant difference in the length of initial hospitalisation with a median of 0 days in the IPC group and 4 days in the talc group ($P < 0.001$)
- During the 1 year follow up, IPC group spent a median of 1 day in the hospital for drainage or drain related complications whereas the talc group spent a median of 4.5 days ($P < 0.001$)
- Adverse events were reported in 40% of IPC group and 13% of talc group ($P = 0.002$) but no significant differences for serious adverse events
- No significant difference in survival time up to 1 year

Study Conclusions

- There was no significant difference in patients with malignant pleural effusion between treatment with an IPC and talc pleurodesis in terms of patient-reported relief of dyspnoea. IPCs reduce length of hospital stay but are associated with more adverse events