Outpatient talc administration by indwelling pleural catheter for malignant effusion

Study Author(s)

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Study Design

Single-blind, randomised controlled trial

Study Location

United Kingdom

Study Length

Recruitment over 4 years; follow up for 70 days

Study Objective

To evaluate whether talc administration through an indwelling pleural catheter (IPC) was more effective at inducing pleurodesis than the use of an IPC alone

Key Endpoint(s)

Successful pleurodesis at day 35 after randomisation was the primary outcome. Secondary outcomes included patient-reported quality of life measurements, dyspnoea, and chest pain.

Patient Population

Patients with malignant pleural effusion

Treatment

154 patients were randomised and treated with placebo (N = 70) or talc (N = 69) via an IPC

Key Findings

- In the primary outcome analysis, 43% of the talc group had successful pleurodesis by day 35 compared to 23% of the placebo group (P = 0.008)
- 51% (35/69) of patients in the talc group had successful pleurodesis at day 70 vs 27% (19/70) of patients in the placebo arm (hazard ratio, 2.24; 95% CI, 1.31 to 3.85; P=0.003)
- For the secondary outcomes, patients receiving talc reported better quality of life scores and better symptom scores including for pain and dyspnoea
- The mean number of days in the hospital was 4.1±7.9 in the talc group and 3.0±5.2 in the placebo group. The difference was not significant (P=0.74)
- No significant difference in adverse events (P=0.74)

Study Conclusions

- In patients with malignant pleural effusion without substantial lung entrapment, treatment by administration of talc through an IPC results in a higher chance of pleurodesis at day 35 than an IPC alone; this difference was statistically significant. There were no differences in the rate of adverse events