

Intrapleural fibrinolysis for the treatment of indwelling pleural catheter-related symptomatic loculations: a multicenter observational study



Study Author(s)

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Study Design

Multicentre, observational study



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Study Location

4 indwelling pleural catheters (IPC) centres: Australia, Canada, United Kingdom, United States



Study Length

Data captured retrospectively for period of January 2002 to June 2014



Study Objective

To record patient outcomes, treatment effectiveness, and adverse events in patients receiving intrapleural fibrinolytic therapy for symptomatic loculations in four established IPC centres



Key Endpoint(s)

Treatment response following fibrinolysis, recurrence of symptomatic loculation, need for further interventions (pleural or surgical), length of hospital stay, safety



Patient Population

Patients who received intrapleural fibrinolytic therapy for symptomatic loculations



Treatment

66 patients were included



Key Findings

- 93% of patients experienced increased pleural fluid drainage (56 of 60 patients)
- Increase in cumulative pleural fluid volume drained, from a median of 0 mL to 500 mL at 24 hours (n=56), $p=<0.001$ and to 900 mL at 72 hours (n=44)
- Dyspnoea decreased in 83% (n=40) of patients with a recorded symptomatic response (n=48)
- Within 72 hours, the area of pleural opacity, as measured radiographically, due to effusion decreased from 52% (SD 14) to 31% (SD 21), n=13, $p=0.001$
- Significant, non-fatal pleural bleeding was reported in 2 cases (3%)
- In the 90 days following administration, no deaths were directly attributed to fibrinolytic therapy
- There was a recurrence of symptomatic loculations in 40.9% (n=27) of patients at a median of 13 days after therapy



Study Conclusions

- Pleural fluid drainage and symptom management can be improved through the addition of intrapleural fibrinolytic therapy in certain patients with an indwelling pleural catheter and symptomatic loculation. The treatment is associated with a small risk of pleural bleeding