Rapid Pleurodesis with Doxiciclin for the Treatment of Malignant Effusions

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Aim

To evaluate the safety and efficacy of bedside pleurodesis with doxiciclin using a short-term indwelling chest catheter for the palliative treatment of malignant effusions.

Material and Methods

- Prospective Study
- Inclusion criteria:
  - Cytological or histological proven MPE
  - Symptomatic MPE of moderate to large size ≥ ½ hemithorax
  - Performance Status > 50
  - XR: adequate pulmonary reexpansion after pleural drainage
- 12 F chest catheter
- Seldinger percutaneous entry technique
- Doxiciclin: 500 mg in 100 ml normal saline solution for 2 h
- Chest catheter removed 12-24 h after administration of sclerosis agent.

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Material and Methods

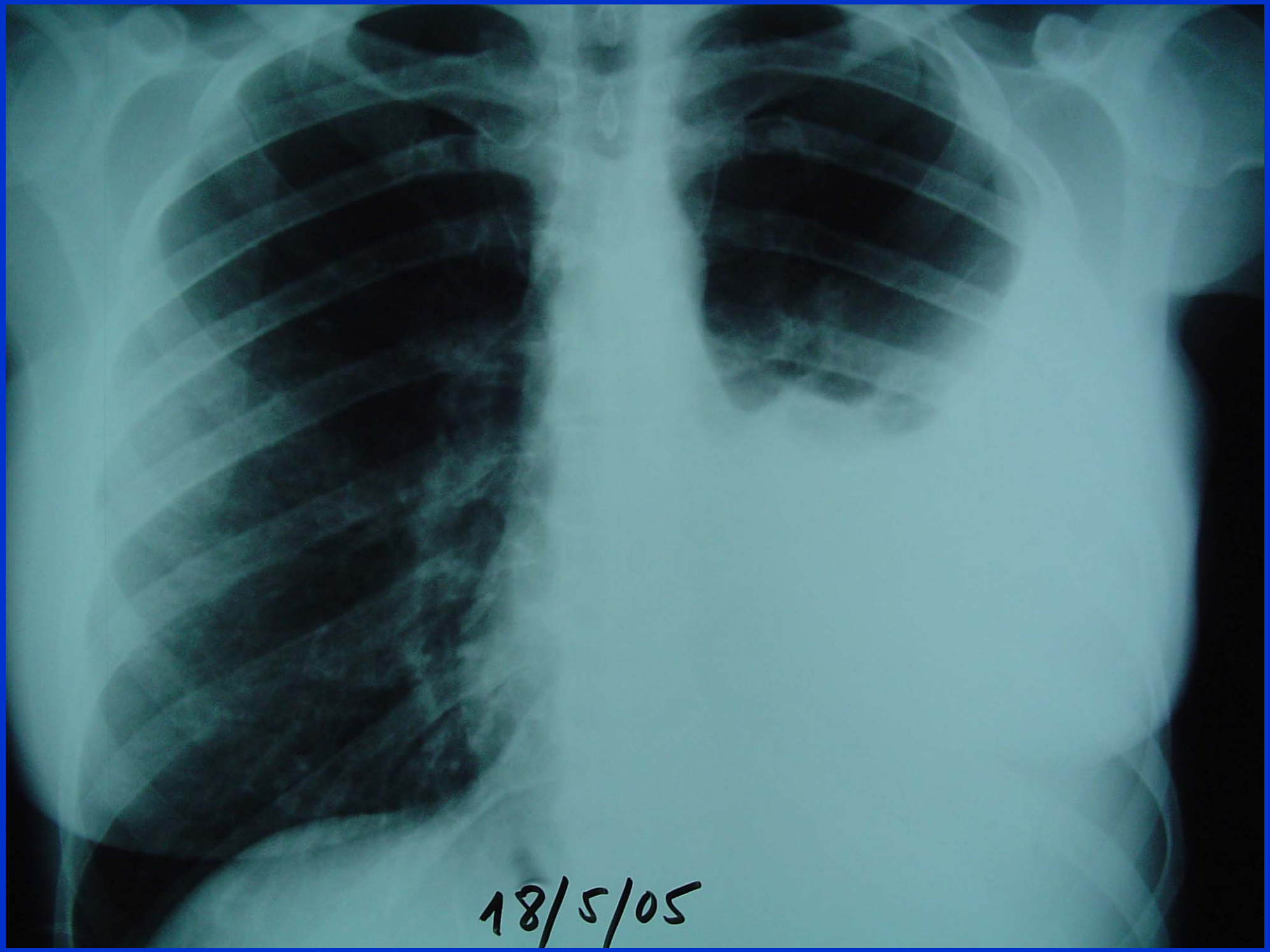
- Response criteria:
  - Complete response: Long term relief from symptoms related to effusion with absence of fluid accumulation on X-ray until death
  - Partial response: Diminution of dyspnoea related to effusion with only partial reaccumulation of fluid (less than 50% of previous levels)
  - No response: lack of success

Results

- N = 34
- $\bar{X}$ Age: 72 year
- Male/female = 50%
- Primary tumour:
  - Lung 32%
  - Breast 23%
  - Ovary 12%
  - Others 32%
- Pleural effusion:
  - 53% left sided - 42% right sided – 5% bilateral
  - 30% :1/2 hemithorax - 42%: 2/3 hemithorax – 28% total

Results

- Pleural fluid drained: $\bar{X}$ 2,675 ml (2000-3275)
- Chest tubes : 24-72 h
- Complications:
  - Pain requiring analgesics: 36%
  - Self limiting fever: 8%
  - Small secondary pneumothorax: 6%
- Response rates: –Complete: 55%
  –Global: 81% –Partial: 26%
  –No response:19%
- Survival: median 105 days (3-610)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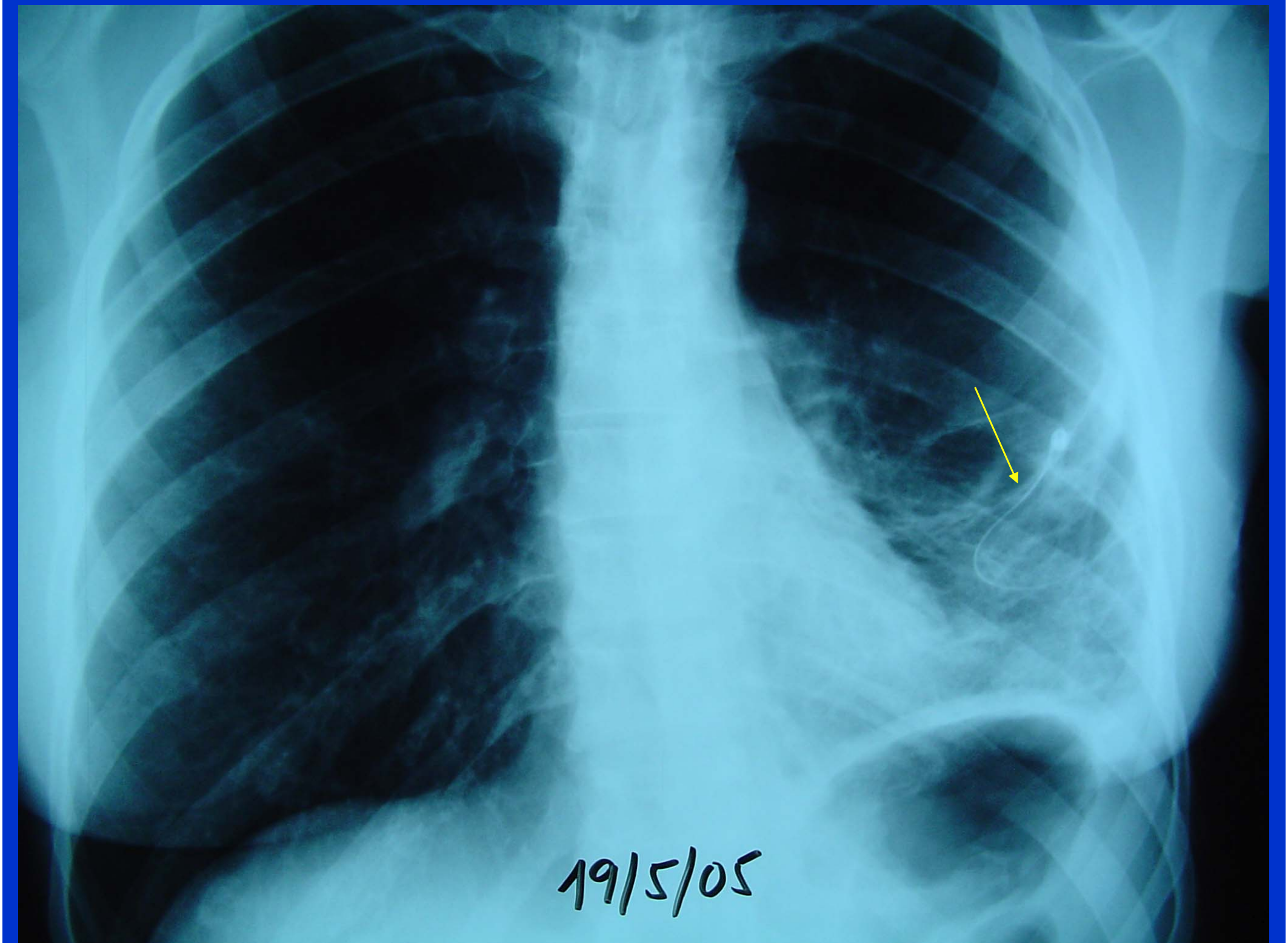
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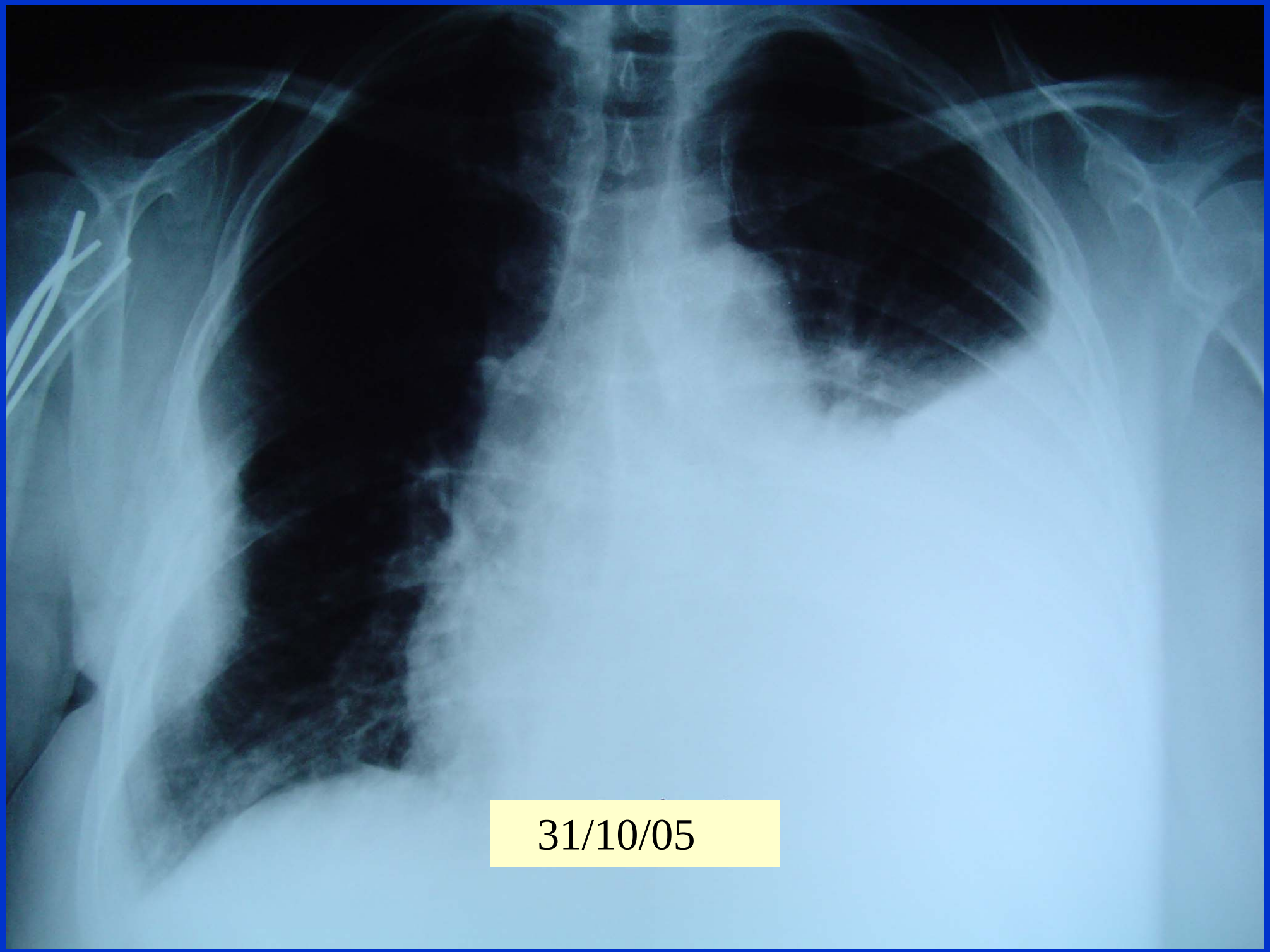
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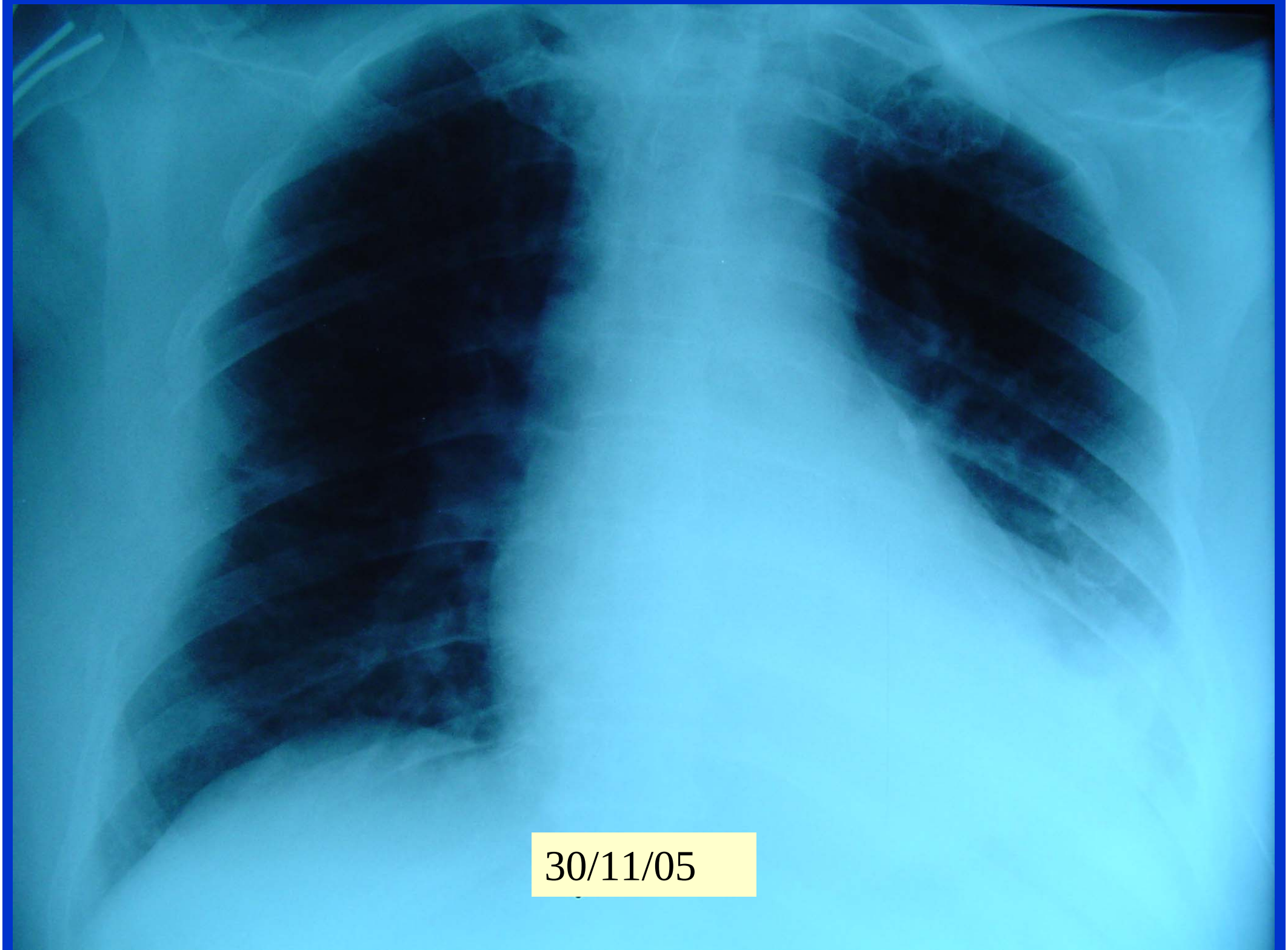
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Conclusions

- Rapid pleurodesis can offer similar results to those reported for traditional techniques
- This technique is easy to apply and constitutes a minimally invasive procedure
- Doxiciclin is a good sclerosing agent that offers few complications and it is less expensive than Bleomycine