

*Case report*

# Pneumothorax following breast aspiration

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Breast cyst aspiration is a minor procedure commonly performed in surgical outpatient clinics, and should be free from complication. The occurrence of pneumothorax after aspiration prompted a literature review. A simple method by which this serious complication can be avoided is described.

## CASE REPORT

A 46-year-old lady returned to surgical outpatients with a recurrent left breast cyst which had been aspirated six weeks previously. She was thin and nervous, on treatment with diazepam and tri-cyclic anti-depressants. She was distressed that the cyst had recurred but lay quietly as aspiration was performed. Multiple cysts were present, and when the first one had been aspirated the 21FG needle was gently repositioned for the next. During this procedure the patient suddenly sat upright on the couch thereby impaling herself on the needle. She appeared to be none the worse as a result and the operation was completed. She then left the clinic. Moments later, she was brought back into the clinical room complaining of left-sided chest pain, clutching her chest and exclaiming that she was having a heart attack. Clinically she was not cyanosed nor short of breath but she had decreased breath sounds over her left chest consistent with a pneumothorax. X-ray confirmed a partial pneumothorax. A chest drain was inserted with immediate re-expansion of the lung and she made an uneventful recovery.

## COMMENT

In 1978 Orr and Magarey reported three similar cases, two of which required intercostal chest drainage; the third developed only a small apical pneumothorax which was treated expectantly. All three made satisfactory recoveries.

The diagnosis and treatment of breast cysts by aspiration is a well-established and widespread practice, and is considered a safe procedure.<sup>1,2</sup> The only complications reported in the literature are pneumothorax,<sup>3</sup> breast haematoma,<sup>4</sup> and epidermal inclusion cysts of the breast.<sup>5</sup> It seems reasonable to suggest that pneumothorax would be most likely to occur in thin, nervous ladies with small breasts and thick walled or multiple cysts, where cyst penetration is difficult, necessitating repeated repositioning of the needle. Production of a pneumothorax must involve penetration of the lung by the aspirating needle, either due to sudden penetration of a thick walled cyst, or to sudden unexpected movement

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by the patient. In either event this serious complication may be avoided altogether by the simple precaution of aspirating all breast cysts with the needle held tangentially to the chest wall, and not at right angles, as is implied in some major surgical texts.<sup>6</sup>

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#### REFERENCES

1. Forrest APM, Kirkpatrick JR, Roberts MM. Needle aspiration of breast cysts. *Brit Med J* 1975; **3**: 30-1.
2. Frable WJ. Needle aspiration of the breast. *Cancer* 1984; **53**: 671-6.
3. Orr KB, Magarey CJ. Pneumothorax after aspiration of breast cysts. *Med J Australia* 1978; **1**: 101.
4. Kline TS, Joshi LP, Neal HS. Fine-needle aspiration of the breast: diagnosis and pitfalls. A review of 3545 cases. *Cancer* 1979; **44**: 1458-64.
5. Gerlock AJ. Epidermal inclusion cyst of the breast associated with needle aspiration biopsy. *Radiology* 1974; **112**: 69-70.
6. Hughes LE. Operations for benign breast disease. In: Dudley H, Pories WJ (eds) — *Rob and Smith Operative Surgery*, Fourth Ed 1982. London: Butterworth: 240.