



Figure 2: Ultrasound probe placed in the wound.

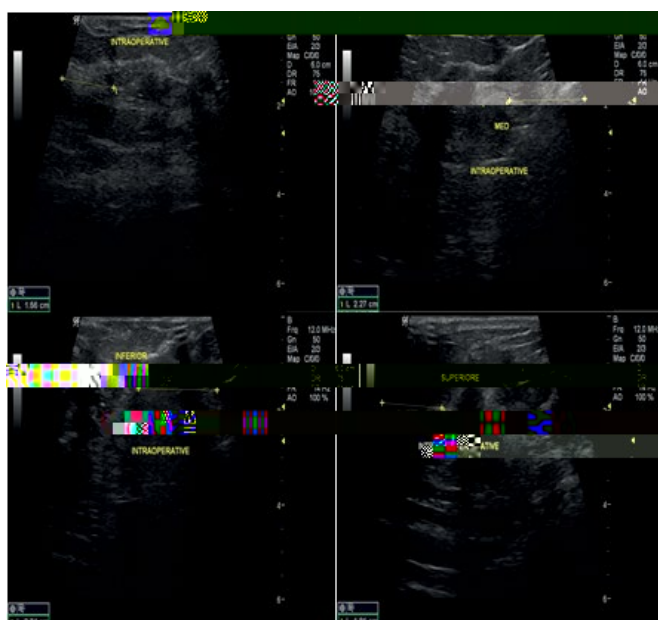


Figure 3: Intraoperative examine 8Bt

In US guided excision of breast tumour, we have the facility of intraoperative radiological assessment of margin status and same session re-excision in cases with positive margin. While in palpation guided excision, the margin status is only declared after a final pathological report which necessitates redo second set operation if margin is positive, and this will end with more morbidity and cost.

Breast density is another factor which may give a false impression about the actual size of breast mass with subsequent more tissue excision if palpation is the only guide for resection. So, the palpation guided resected specimen usually is irregular with points with wide margin (more than 1 cm) while other points with narrow or even breached margin. On the other hand, US guided excision is mostly spherical with regular margin.

The volume of resected breast tissue is the major determinant for cosmetic outcomes. In this study, volume of excised specimen as calculated by macroscopic measurements is $137.3 \pm 9 \text{ cm}^3$ in palpation guided group while in US guided group the specimen volume is $93 \pm 5 \text{ cm}^3$. This shows the significant reduction in tissue resection with subsequent healthy tissue preservation. In Marcia et al, the specimen volume was $114 \pm 5.6 \text{ cm}^3$ in PGG and $104 \pm 8 \text{ cm}^3$ in USG. These findings were non-significant but when they compare between 2 methods in dense breast patients they found a significant change in specimen volume. It was $127 \pm 12.3 \text{ cm}^3$ in USG and $180 \pm 42.1 \text{ cm}^3$ in PGG [15].

Conclusions

This study showed that US is an effective guide for healthy tissue preservation with efficient one session resection of early breast tumours and that will augment the benefits gained after breast conserving surgery. Intraoperative ultrasonography contributes to improved cosmetic outcomes by guiding for safe resection of smaller volumes of breast tissue resulting in larger sparing of healthy breast tissue.

References

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2. Rankin JS (2006) William Stewart Halsted: A Lecture By Dr. Peter D Olch. *Ann Surg* 243: 418-425.
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