Use of additional absorbent pad in the skin preparation and draping of breast patients to reduce rates of contact dermatitis

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BACKGROUND

Breast cancer is common, with 50,285 new cases identified in the UK in 2011.¹ The majority of these patients proceed to surgery unless unfit to undergo anaesthesia. Various skin preparation techniques have been suggested to reduce surgical site infection rates. These techniques vary between unit and surgeon's preference. A systematic review from 2010 showed iodine-based skin preparation to be significantly effective in reducing the rate of surgical site infections.²

In one unit over a six-month period, six patients undergoing breast surgery were observed to have developed contact dermatitis following the distribution of the surgical drapes, where iodine skin preparation had pooled (Fig 1). After extensive investigation, it was concluded that pooling of iodine, posterior to the axillary triangle and over the posterolateral border of the chest wall on the operative side, was the likely cause.

TECHNIQUE

In order to reduce the number of reactions, several measures were introduced. First, prior to application of the iodine solution, an additional absorbent pad was placed under the axilla and posterolateral chest wall. This was removed before application of sterile drapes while ensuring maintenance of the sterile field. In addition, iodine solution was left to dry naturally prior to the application of surgical

Figure 1 Contact dermatitis over the posterolateral aspect of the chest wall

drapes. New hypoallergenic surgical drapes were sourced to be used for breast cancer cases (SureSafe®; General Healthcare Solutions, Chatswood, NSW, Australia) and reconstruction cases (Foliodrape®; Hartmann, Heidenheim, Germany).

DISCUSSION

We have used these techniques for all breast cancer operations in this unit for six months and have had no further cases of contact dermatitis.

References

1. Breast Cancer Statistics. Cancer Research UK. <http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/breast-cancer> (cited August 2015).
2. Fournel I, Tiv M, Soulias M *et al*. Meta-analysis of intraoperative povidone-iodine application to prevent surgical-site infection. *Br J Surg* 2010; **97**: 1,603–1,613.