

PICO[®] single use negative pressure wound therapy (sNPWT) significantly reduced wound complications after bilateral breast reduction mammoplasty compared with standard care

Scar quality was also significantly improved



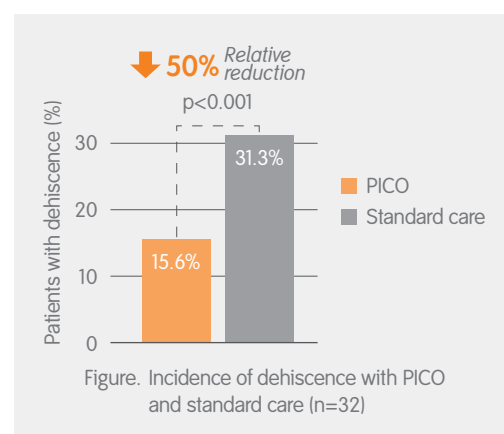
Study design

- A single-centre, prospective, randomised, controlled study of 32 women (mean age, 40.9 years) undergoing bilateral breast reduction mammoplasty who received either PICO or standard care (fixation strips) on either the left or right breast and were part of a larger multicenter study¹
- The primary outcome measure was the number of surgical site complications (SSCs) 21 days post surgery, with secondary outcome measures of aesthetic appearance and quality of scarring at days 42, 90, 180 and 365 assessed by Patient and Observer Assessment Scale (POSAS) and visual analogue scale (VAS)



Key results

- The total number of SSCs was significantly lower with PICO than with standard care ($p < 0.004$)
- Superficial wound dehiscence was significantly less frequent with PICO than with standard care ($p < 0.001$; Figure)
 - Five patients (15.6%) had dehiscence in both breasts; for two of those patients, dehiscence healed more quickly with PICO than with standard care
- Scar quality (POSAS and VAS) was significantly better with PICO than with standard care at 42 and 90 days after surgery ($p < 0.05$)
 - A significant improvement in total VAS score was also observed at day 180 with PICO ($p < 0.05$)



Conclusion



PICO use significantly reduced the number of SSCs, including dehiscence, and significantly improved the quality of scarring compared with standard care.

Considerations



- Acceptance of PICO by both patients and physicians in this study was high; patients reported that PICO was comfortable to wear and that there was not much pain or skin irritation when it was removed

Study citation



*Tanaydin V, Beugels J, Andriessen A, Sawor JH, van der Hulst RRWJ. Randomized controlled study comparing disposable negative-pressure wound therapy with standard care in bilateral breast reduction mammoplasty evaluating surgical site complications and scar quality. *Aesthetic Plast Surg*. 2018 Feb 13. [Epub ahead of print]

References:

1. Galiano RD, Hudson D, Shin J, et al. Incisional negative pressure wound therapy for prevention of wound healing complications following reduction mammoplasty. *Plast Reconstr Surg Glob Open*. 2018;6:e1560.