Subcutaneous pain catheters with elastomeric pumps in implant-based reconstruction offer short & long-term benefits to breast cancer patients post-operatively

Breast Oncoplastic Surgical Department, Milton Keynes University Hospital, Buckinghamshire, United Kingdom.
Poster presentation at Swedish Surgical Society (Svenska Kirurgveckan, Helsingbor August 2018)

MAIN MESSAGES:
• 25-60% of breast cancer patients have persistent POSTOPERATIVE PAIN, which is also the commonest cause of concerns amongst patients.
• EFFECTIVE & EARLY pain control is VITAL to minimise pain morbidities postoperatively
• ‘PAIN BUSTING’ subcutaneous catheter during post operative period can be useful.

INTRODUCTION & STUDY AIMS:
• Persistent pain following breast cancer surgery affects 25-60% of patients.
• Subcutaneous Pain Catheters (SPC) improve post-operative pain scores (2).
• AIM No. 1: To assess the benefit of SPC in the peri-operative period.
• AIM No. 2: To determine if good early post-operative pain relief reduces neuropathic pain at one year following surgery using LANSS questionnaire (Fig 1)

METHODS:
• 60 patients (skin sparing mast with subpectoral implant based reconstruction) participated. All completed the LANSS questionnaire for neuropathic pain preoperatively (Figure 1)
• Blinded to patient participation surgical and anaesthetic teams determined which patients received SPC. 34 received SPC (On-Q system TM)
• The visual analogue scale (VAS) recorded preoperatively, 6, 12, 24, 48 hours and 7 days. Analgesia use at 24, 48 hours and 7 days was recorded, and the time of discharge. The LANSS was completed pre-operatively, 6 and 12 months following surgery.
• Chi square test and T-test was used for categorical and continuous responses.

RESULTS:
• Post op pain score was significantly lower from 6 hours onwards in the group receiving SPC. This difference is still present up to 1 week after surgery.
• The analgesia required is less in the first week after surgery in the SPC group.
• Improved pain control translates into an earlier discharge from hospital 14 ± 4 hours versus 28 ± 8 hours (p = 0.032).
• Pre-operative LANSS was not different between the two groups. But at 6 (p = 0.039) & 12 (p= 0.035) months post op, the SPC group had less pain
• Figure 2 showed which LANSS questions the patients scored positively on. Patients with SPC reported less abnormal sensation (question 1), less bursts of pain (question 4) and less allodynia (question 6)

CONCLUSIONS:
• SPC offers a potential route for reducing early post-operative pain and late neuropathic pain.
• SPC permit earlier discharge and the potential to perform day case surgery & save hospital costs

Dr Kian Chin MBChB (Bristol UK), FRCS(England)
Brist och Melanom Teamet
Sahlgrenska Universitetssjukhuset
Båg Ståket 5, 413 45 Göteborg

E-post: kian.chin@vgregion.se
websida: www.sahlgrenska.se

FIGURE 1: LANSS: LEEDS ASSESSMENT NEUROPATHIC SYMPTOMS & SIGNS
1. Pain feel like a strange sensation? (Score 5).
2. Skin in the painful area look different? (Score 3).
3. Pain make the skin abnormally sensitive? (Score 3).
4. Pain come on spontaneously in bursts? (Score 2).
5. Pain alter how the skin temperature feels? (Score 1).
6. Allodynia experienced in the painful area only? (Score 5).
7. Altered pin prick sensation in the painful area only? (Score 5).

SCORE OF >/= 12 EQUALS TO SIGNIFICANT SYMPTOMS

FIGURE 2: POSITIVE PATIENT EXPERIENCE:
• Provided good pain relief I only required paracetamol for a 2 days.
• It was easy to have with the drains and came out easily.
• I had less pain than I was expecting & no problems a yr after surgery.

NEGATIVE PATIENT EXPERIENCE:
• I woke up with pain but once the catheter worked it worked well.
• I wont have the catheter again it just delayed by 48 hrs when I had pain.
• Three patients had bruising from the SPC insertion.