The extent and impact of musculoskeletal dysfunction on women following breast reconstruction using the Latissimus Dorsi muscle. A questionnaire survey

Document Version:
Other version

Queen's University Belfast - Research Portal:
Link to publication record in Queen's University Belfast Research Portal

Publisher rights
Copyright 2016 The Authors.

General rights
Copyright for the publications made accessible via the Queen's University Belfast Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
The Research Portal is Queen's institutional repository that provides access to Queen's research output. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact openaccess@qub.ac.uk.

Open Access
This research has been made openly available by Queen's academics and its Open Research team. We would love to hear how access to this research benefits you. – Share your feedback with us: http://go.qub.ac.uk/oa-feedback

Download date: 14. Sep. 2023
The Musculoskeletal Consequences of Breast Reconstruction using the Latissimus Dorsi Muscle: A Focus Group Study

Ms Nicole Blackburn1, Dr Joseph G McVeigh2, Professor Eilis McCaughan3 & Dr Iseult M Wilson4

Background

A breast cancer diagnosis and consequent treatments, which often include mastectomy, can be extremely distressing for women. Breast reconstruction following mastectomy is considered an important management option for women to consider [1]. The latissimus dorsi (LD) flap is one of the most widely used surgical procedures for women with breast cancer undergoing reconstructive surgery [2,3]. However, one common, but often ignored, complication following LD flap reconstruction is shoulder dysfunction [4,5]. Previous literature surrounding the impact of LD breast reconstruction has mainly focused on body image, aesthetic results and wound healing [6] with little in-depth investigation of the impact of this surgery on shoulder function [7]. The aim of this study, therefore, was to determine the musculoskeletal consequences of breast reconstruction using LD, and their impact on function and quality of life, as perceived by patients.

Methodology

- Three focus groups were conducted with women who had undergone reconstructive surgery (n=15)
- Women also completed a profile form which collected demographic information including; age, diagnosis, staging of breast cancer, cancer treatments and timelines
- Shoulder movement was also assessed at the time of the focus groups

All focus groups were audio and video recorded, inductive content analysis was used to analyse transcripts and to develop core themes and sub-themes. A second level of analysis was also conducted whereby information from the participant profiles and the shoulder movement analysis were mapped to the participant’s individual statements.

Results

Common Functional Difficulties Reported (≥1 year post-op)

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tightness in the shoulder and back</td>
<td>Mustard</td>
</tr>
<tr>
<td>Weakness in grip</td>
<td>N/A</td>
</tr>
<tr>
<td>Cramping</td>
<td>N/A</td>
</tr>
<tr>
<td>Pain and discomfort in the donor site</td>
<td>Mustard</td>
</tr>
<tr>
<td>Inability to carry heavy weights</td>
<td>N/A</td>
</tr>
<tr>
<td>Reduced power</td>
<td>N/A</td>
</tr>
<tr>
<td>Fatigue</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Despite all women encountering various challenges and facing ongoing problems throughout their journey, the women remained positive and reflected on their experience in an optimistic light.

"You appreciate having them worries and being alive"

Women recognised their lack of awareness regarding the potential long-term musculoskeletal implications of surgery, with women recalling pre and post-operative care to be mainly concerning wound healing and aesthetic outcome.

"...no mention of any ill-effects, and shoulder effects"

"At the time you’re not really told, ‘well this is going to be an impact on your life’, but then at the time it’s not your concern"

However, it was apparent that the relative importance of overcoming the cancer and recovering from the adjuvant treatments was of higher priority than the potential of reduced function of the shoulder, following surgery.

Conclusions

LD breast reconstruction has an impact on function and activities of daily living to varying extents, irrespective of variables such as age, dominance and time since surgery. Further analysis revealed no major influencing factors on the functional consequences of surgery and supports the preliminary findings surrounding the impact of the surgery, and the consequential coping and resilience demonstrated by the women following LD breast reconstruction.

Methods

Three focus groups were conducted with women who had undergone reconstructive surgery (n=15). Women also completed a profile form which collected demographic information including; age, diagnosis, staging of breast cancer, cancer treatments and timelines. Shoulder movement was also assessed at the time of the focus groups.

All focus groups were audio and video recorded, inductive content analysis was used to analyse transcripts and to develop core themes and sub-themes. A second level of analysis was also conducted whereby information from the participant profiles and the shoulder movement analysis were mapped to the participant’s individual statements.

It was evident from the data that few, if any of the women recovered to their pre-surgery state of shoulder function or strength. Nonetheless, the women accepted this as a consequence of surgery and as a result, accommodated a ‘new normal’. Consequently, ‘Resilience’ emerged as the overarching theme from the data. Furthermore, three sub-themes emerged including; preparation and awareness, coping and self-management.

Further analysis revealed that based on participant characteristics there were no major influencing factors on the perceived impact of LD breast reconstruction.

Participant Characteristics

| Age (years) | Mean (SD) | 56 (7.5) |
| Range       | 45 - 71   |          |
| Operated Side |          |         |
| Dominant   | 6        | 40       |
| Non-dominant | 9       | 60       |
| Time since Reconstruction (months) | Mean (SD) | 62 (28.9) |
| Range       | 12 - 112  |          |

References