



Breast Cancer, Planarians, and Plastic Surgeons

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...This body's fenscape, manscaped, hills removed – the meaty joins still livid, tight shut mouths where distant territories were stitched

in touch. Blood seeps in deltas over ribs...

-From Self-portrait without Breasts, by Clare Best

t is generally accepted that the survival rate of breast cancer has dramatically improved, and the outcomes of breast reconstruction are also excellent. When we meet a patient who has breast cancer and is planning to undergo mastectomy, we can say, "Now it's a simple matter of cutting out the breast cancer and restoring the breast." However, surgical procedures intended to treat breast cancer or reduce the risk of developing the disease typically result in changes in appearance and scarring of the breast area and any donor sites. Therefore, those who have not experienced these changes could never understand the indescribable pain.

Nonetheless, we might be able to sympathize with patients' pain and hurt through protagonists in literature. I introduce two examples.

In her project *Self-portrait without Breasts*, Clare Best, an English poet, reclaims the "flat simple scarred chest with no extras." In the title poem of the poem cycle she uses figurative expressions about the post-mastectomy body as a landscape (Fig. 1): "...This body's fenscape, / manscaped, hills removed - the meaty joins / still livid, tight shut mouths / where distant territories were stitched // in touch. Blood seeps in deltas over ribs...."²

A Japanese writer, Fumio Yamamoto (山本文緒, 1962–), wrote "Planaria," a collection of five stories about women without regular jobs, for which she won the Naoki literary prize in the second half of 2000.³ The title story is a vivid portrait of Haruka, a 26-year-old woman who is adrift in life, unable to reconnect to family and work after losing a breast to cancer 2 years earlier. A difficult person even before the operation, she sabotages

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her relationships with both her boyfriend and a slightly older woman who has given her part-time work at a confectionary store. In a memorable line, she says, while out drinking with friends, that she would like to be reborn as a "planaria," a small worm living in pure streams that can regenerate itself when a part of its body is cut off. In fact, a "planarian" is one of many flatworms of the traditional phylogenic class Turbellaria. Planarians exhibit an extraordinary ability to regenerate lost body parts. When split lengthwise or crosswise, a planarian will regenerate into two separate individuals. It can be cut into pieces, and each piece can regenerate into a complete organism. Cells at the location of the wound site proliferate to form a blastema, which differentiates into new tissues and regenerates the missing parts of the piece of the cut planarian. Thereafter it is called "immortal under the edge of a knife."4

The reconstructive surgery following resection also bothered Haruka. "After I had breast reconstructive surgery, a place appeared where my skin was folded and sewn like the folds on my clothes. It itches terribly when I feel hot from time to time. I can't scratch it because it's under my clothes. Sometimes it really drives me crazy. Am I supposed to be okay with this?"

In a study, participants were asked open-ended questions about their experiences when seeing the postsurgical appearance of their breast/breast area (and donor site, if relevant) for the first time, and four key themes emerged: "preparedness and support," "first thoughts and emotions," "loss and grief," and "the reaction of others." Some felt prepared and emotionally supported at this time, whereas others felt this element of care was missing.¹ Another study explored the decision to undergo breast reconstruction surgery after mastectomy and found that the decision was made during stressful circumstances, and many women did not feel well prepared to make this decision. The most highly ranked reasons to choose breast reconstruction were the desire for the breasts to be equal in size, the desire to wake up from surgery with a breast in place, and the perceived bother of a scar with no breast. The most highly ranked reasons not to choose breast reconstruction were related to the surgical risks and complications.⁵ A third study found that most women (76 of 93) made quick, "instant" decisions to undergo immediate breast reconstruction following mastectomy, whereas the remainder (14 of 93) sought further information before making their choice. Women with complications were twice as likely to report feeling less feminine and

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Fig. 1. Photography by Laura Stevens, collaborator of "Self-portrait without Breasts" written by Clare Best. Available at: https://clarebest.co.uk/projects/self-portrait/. Accessed on Aug 27, 2021. © Laura Stevens. Used with permission.

dissatisfied with the appearance of their scar than those without problems.⁷

Like Haruka in the novel, many breast cancer patients struggle with severe stress. What is needed to overcome these mental and physical sequelae is social rehabilitation. Therefore, the medical staff should encourage patients to return to daily life immediately after surgery and perform breast reconstruction or provide the patient an artificial breast. Thereafter, breast reconstruction restores both the resected breast itself and patients' communication with themselves, their family, and the society around them.

In this process, we plastic surgeons play the role of making patients who undergo mastectomy "immortal under the edge of a knife," much like planarians. I hope that both a poetic mind and anatomical knowledge will help surgeons achieve satisfactory results.⁸

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