

and subsequently in the axilla. This is what we would naturally expect, if we consider the manner of the circulation in the lymphatics, which is from the sternal to the axillary part, from the deeper gland lymphatics to the subcutaneous area surrounding the nipple, and then outward to join the other axillary ones, and also outward through the subglandular lymph canals in the pectoral fasciæ. This fact is a strong argument why all breast tissue, pectoral fasciæ (muscles, if necessary) and axillary contents should be removed freely. In the present age of asepticism and clean surgeons, are we making a desirable progress in our attempt to get primary union in breast amputations? Is there not too great a tendency towards cosmetic effects and too much conservatism in removing skin and other structures which are diseased?

There can be no doubt that where recurrences have taken place they have appeared at a much earlier date after primary union than where healing has been done by open wound granulation. I have never had a better result in any of my cases than my first breast amputation, which was a large ulcerating scirrhus of the left breast. The skin was brawny and adherent, the tumor was also adherent to the muscles beneath, and extended to the extreme sternal end of the gland; the axillary glands were as large as walnuts, and the case was apparently a very unfavorable one. The entire gland was removed along with the two pectoral muscles and superficial layer of the external intercostals, the fasciæ covering the serratus magnus, the axillary glands and fat, and the whole surface of the skin, excepting the anterior axillary fold, leaving a large gaping wound more than eight inches in the vertical diameter. No attempt was made to unite the edges, excepting by adhesive strips. The wound took thirteen weeks to heal, assisted by skin grafts. The patient, when last seen two weeks ago, was in good health, being sixteen years since the operation, and capable of doing all the work that devolves upon her as a farmer's wife. A conservative could not stand up against a liberal in this case.

When we consider the anatomical distribution of the mammary lymphatics, being sub-areolar and sub-glandular, and also the direction in which the lymph flows, we can well afford, in the interests of our patients, to sacrifice a large area of skin, the entire gland, which is much more extensive than is generally believed, the pectoral fascia, that also covering the serratus magnus, the axillary glands, with their bed of fat and the fascia and fat lying between the pectoral muscles.

A very reliable and simple means is suggested by Mr. Stiles, of Edinburgh, for testing, during the removal of a carcinomatous breast,