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LETTER TO THE EDITOR

Gertrude M. Beer

Comment to "Anatomical study of the breast superficial system: the inframammary fold unit" E. Riggio et al.

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Dear Editor:

It was with much interest that I read the article, "Anatomical study of the breast superficial fascial system: the inframammary fold unit", by E. Riggio et al. published in volume 23 (2000) of the *European Journal of Plastic Surgery*.

I did, however, have some difficulty in reading through all the expressions concerning the fascial systems of the breast that the authors scattered throughout their paper, expressions such as "retinaculum fibrosa", "connective retinacula", "the short retinaculum", "the thickened retinaculum", "inframammary pseudoligament", "pseudoligamentous band", "inframammary retinaculum", "submammary lamina", "middle inframammary transverse line", "inframammary fold unit", "fascia mammae", "fascial frame", "breast capsule", "the connective frame", "connective band", "elastic septa", "fibrous band", "fibrous membrane", "deeper muscular fascia", "superficial fascial system", and so forth.

I had even more difficulty in understanding the conclusions that the authors have drawn from their study. For example, they state in their abstract that the superficial fascial system is related to sex, age, breast size, weight, and adiposity, despite the fact that the demographical data of their patients and cadavers are incompletely listed. The only known data of the three male cadavers pertain to their mean age of 69. The age of the "histological group" is missing, and in neither group is the body weight addressed. Concerning the breast size of patients, there were nine medium sized, one large, and one small, and the remainder of breast sizes was not indicated. Later on, in the discussion, the authors admit that the correlation between these parameters and the superficial fascial system is not significant.

With as few as three men, any statistical analysis is impossible. Furthermore, the authors allege that the superficial fascia was thinner in the male and that the male breast has no superficial layer of the fascia. It is true that the existence of the "superficial layer (SL) of the superficial fascia" has been controversially discussed over decades. The SL had long been advocated by anatomists but endorsed by others, mostly surgeons. The reason for these divergent theses might be the rather delicate structure of the SL and the small sample sizes of the observed patients or cadavers [1, 2,3]. Haagensen [4] also, being convinced of the existence of the SL, stated that it is seen only by those surgeons who look for it carefully, but provided them with useful guidance for dissecting skin flaps in a relatively avascular plane. We ourselves have made the same observation in breast resection specimens of women who have undergone a vertical scar breast reduction where we have histologically examined the presence of the SL [5]. The presence or absence of this layer is a histological diagnosis and not exclusively a macroscopic assumption in three male cadavers, as the authors tried to make out.

Furthermore, in the description of the anatomy of the breast subcutaneous territory, the authors claim that the superficial fascia in both sexes does not have a superficial layer which envelopes the breast. On the other hand, they confirm the existence of an "anterior breast capsule or fascia mammae" which envelopes the breast ventrally and fuses with the superficial fascia. They suggest that this fascia is better termed as "Cooper's lamina". As the authors seem to be certain that there is a structure which envelopes the breast ventrally, why not maintain the well-known name SL to avoid further confusion? It is premature to try to alter anatomical terms of the breast due to nine incomplete histological examinations with only one vertical section of the lower pole of the breast.

Finally, as a result of their study, the authors prefer to think that the harmony of the breast is related to the superficial subcutaneous structures. At the end of their arti-

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cle, the authors made one comment with which I can agree. They state that an accurate anatomical knowledge is a basic requirement for the improvement of plastic surgical results. I wish to add the following further prerequisites: a clear nomenclature, an exact description of the study design with (demographic) data of the patients, and a sound scientific and statistical basis for accurately discussing results.

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