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EDITORIAL

Towards a scientific basis for oncoplastic breast surgery

The treatment of breast cancer is a rigorous discipline. Oncological surgery of the breast has been refined in a scientific manner over the past century. Over the past decade in particular, it has come under rigorous scrutiny, such that the oncological management of the various presentations of DCIS and of locally invasive and metastatic disease is now systematic and standardised from one unit to another. Breast cancer surgery has been obliged to separate from general oncological surgery into a defined subspeciality discipline in the UK and elsewhere.

Invasive disease fits one of two general patterns. There are the logical, stepwise progressive and well behaved variants, which respond with long survival times to all reasonable treatment strategies. And there are the illogical, nasty variants, which defy all of the therapeutic strategies thrown at them. We have no accurate predictors of individual tumour behaviour at the outset, and there is thus reasonable room for variation in surgical treatment strategy by way of mastectomy or conservative surgery and axillary dissection from one surgical team to another.

Aesthetic surgery of the healthy breast has become a major industry over the past half century. Some of the indications have a sound medical basis, such as severe hypoplasia, hyperplasia or asymmetry. Much of the demand has arisen from the more complex psychosocial, economic and reproductive pressures of human male to human female interaction against a background of growing wealth, expectation, longevity and social turbulence.[1] Aesthetic surgery has generally followed a separate trajectory and professional mainstream.

Developments in prostheses and in the understanding in the vascular anatomy of myocutaneous flaps have encouraged considerable experimentation in the substitution and mimicry of the surgically removed or surgically reduced cancerous breast over three decades. We have now reached a point where a wide range of tissue modelling techniques, which may include reduction mammoplasty to the healthy breast, can be used to achieve symmetry immediately at cancer surgery or delayed by a variable interval.

The nominative boundary between breast cancer surgery and aesthetic or substitutive surgery has become deliberately blurred in the term oncoplastic surgery, but the intellectual boundaries between the oncological and plastic components are clear and absolute. Decisions on the optimum management of the primary tumour must take precedence over decisions on breast mimicry, which must in turn follow a clear sequence as to whether and when to embark on substitutive procedures. The committed 'reconstructive' surgeon cannot be an objective advisor in these circumstances, particularly as patients are often highly suggestible to any management strategy and powerful surgical personality at a very vulnerable time.

Observation of the deliberations in conference of mammoplastic surgeons is as intriguing for the wealth of technical detail and individual opinion as for the paucity of systematic evidence on which that opinion is based. There are many questions which must be addressed systematically before the main kirk of oncological breast surgeons can regularly commend oncoplastic techniques to their patients.

Thus, for example, how far will the oncological management of the breast and axilla, and the viability of the flap itself be compromised by election to immediate reconstruction? How do we quantify the functional deficits, problems and complications arising from the myocutaneous donor site? How will time, gravity and normal tissue atrophy affect the quality of the substitution? How many additional, non-oncological operations will a patient undergo over a lifetime? How will the personality or aesthetic expectations and recommendations of the advising surgeon influence the number of interventions? What is the cumulative and comparative failure rate of the various techniques? Does the patient really understand the risks, the downside and the fallback

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positions, as for example in respect of local recurrence or extensive flap infarction? What would patients really report to independent reviewers, with the benefit of experience and hindsight? The questions go on.

Sufficient time has passed, and the experience and technical options have now accumulated worldwide for these questions to be addressed in a rational and systematic way. General oncological breast surgeons must not be bamboozled or intimidated by technique, technicolor and anecdote. Patients, surgeons, costs and risks must surely now be driven by hard fact and sophisticated algorithm as by optimism and artistry.

D. A. Rew
Consultant Surgeon
Southampton University Hospitals

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