Training the oncoplastic breast surgeon – current and future perspectives

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Abstract: Oncoplastic breast surgery has evolved to become a distinct subspecialty within the field of general surgery. The oncoplastic breast surgeon requires comprehensive knowledge and understanding of all aspects of breast oncology, in addition to technical proficiency in operative procedures to remodel and reconstruct the breast. This article describes current educational resources available for the training of oncoplastic breast surgeons both within the UK and internationally. A recent development is the online Master of Surgery degree in Oncoplastic Breast Surgery, based at the University of East Anglia in the UK. This innovative course combines delivery of clinical knowledge using interactive problem-based forum discussions with assessment of operative and decision making skills. The degree is facilitated and assessed by an expert specialist breast faculty, and requires students to achieve standards expected of a first year practising UK oncoplastic breast consultant. Future international developments using this blended educational model are discussed.

Key Words: Oncoplastic; breast; e-learning; Masters; education



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UK background

Oncoplastic breast surgery has evolved as a distinct specialty over the last 10 years. This approach entails a single surgeon performing both the oncological procedure and subsequent reconstruction, thus providing a comprehensive oncoplastic approach. Although breast surgery remains under the auspices of general surgery in the UK, the new intercollegiate training curriculum recognises the wide range of oncoplastic procedures in which trainees must gain competency before the award of a certificate of specialist training required for a substantive consultant post.

International background

Traditionally, the majority of breast surgery is performed by a general surgeon in the United States and Australasia, or by a gynaecologist in European countries. The subsequent reconstruction is then undertaken by a plastic surgeon. However, this approach has limitations as it requires co-ordination of surgeon availability which may delay primary operative treatment, and geographic inequalities exist in accessing reconstructive services. Increasingly, the oncoplastic single surgeon model is gaining popularity internationally.

Current UK educational resources

UK trainees currently undertake oncoplastic breast surgery training during their last three years of specialty rotations. This practical experience is provided by local breast units, and can be supplemented by a one year fellowship, either as one of the highly competitive National Training Interface Group posts, of which there are only 9 per year, or as an independent fellowship post which usually includes an element of service provision.

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In addition, the UK Royal Surgical Colleges provide a range of optional specialist courses in oncoplastic theory and practice, including legal aspects of surgical practice. Other available educational resources include industry sponsored events which address specific practical techniques such as the use of acellular dermal matrices and lipomodelling. Specialist conferences such as Oncoplastic and Reconstructive Breast Surgery (ORBS) are a chance to update practice and disseminate current information in a rapidly evolving specialty. The Association of Breast Surgery offers a subsidised annual trainees conference which includes a large element of oncoplastic surgery, and further educational events are organised by trainee groups such as the Mammary Fold and Plasta.

Online resources

The use of blended e-learning is gaining in popularity as an effective educational approach for postgraduate specialist medical training. The introduction of the European Working Time Directive to the UK has reduced clinical training hours and decreased trainees' exposure to training opportunities. Virtual learning environments allow trainees to access teaching materials at any time to suit their work schedule.

A Master of Surgery degree (MS) in Oncoplastic Breast Surgery was launched by the University of East Anglia in January 2011. This course blends online problem based learning forums with face-to-face lectures and summative examinations, and is open on a competitive basis to all UK breast surgeons of grade ST5 and upwards. In addition to theoretical knowledge, it includes assessment of practical skills including decision making and operative competence. The standard required for the award of the degree is that expected of a first year practising UK oncoplastic breast consultant, as judged by an expert faculty panel.

In addition to compulsory modules which cover benign breast disease and breast oncology, a full range of oncoplastic techniques is taught, including level I breast conserving surgery approaches, implant-based and flapbased breast reconstruction. Topics are taught using a range of clinical scenarios which are discussed by students

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in an online forum moderated by experienced senior clinicians. Students are able to assess their own progress using formative tools such as MCQs and script concordance tests. Each module is introduced with a face to face

tests. Each module is introduced with a face-to-face lecture session, and concludes with a written examination. There is an annual OSCE to assess practical skills and communication.

The MS in oncoplastic breast surgery is now in its third year. Approximately 18 students have enrolled each year, and the first cohort is due to graduate in 2014. Anonymised student feedback has been generally excellent, and the course content and delivery is constantly reviewed and refined based on suggestions received from both students and faculty members. Following the success of this model, further MS degrees are now being delivered in regional anaesthesia and coloproctology, with programmes in both knee and hepatobiliary surgery also currently under development.

Future directions

As previously mentioned, there is growing interest in developing the specialty of oncoplastic breast surgery from countries outside the UK. The challenge will be to deliver accessible quality training in this new area of clinical practice. The established online MS degree in oncoplastic breast surgery is one potential mode of delivering high quality theoretical and practical training which will be globally accessible, but which can also be tailored to meet local educational needs. Various potential models exist, but there is an opportunity to provide a higher qualification which is widely accessible and recognised internationally.

At present the MS degree is open to UK residents, with European applicants considered on a case-by-case basis but the possibility of wider international dissemination is being explored. Further information is available by contacting andrew.d.simpson@uea.ac.uk.

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