Breast cancer surgery during the COVID-19 pandemic

Editor

The Nightingale Breast Centre is one of the largest breast units in Europe. As the pandemic accelerated, we endeavoured to minimize disruption[1] and continue to offer breast cancer surgery by developing a protocol to reduce the risk of COVID-19 transmission.

We moved to offer only simple oncological surgery. We avoided complex oncoplastic procedures and immediate breast reconstruction, to reduce operating time, risk of complications and to protect theatre capacity. Patients were made aware of the potential risk of COVID-19 infection during treatment. Primary endocrine therapy was considered as an alternative for frail patients with oestrogen receptor positive cancers.

From 23 March 2020 to 1 May 2020, 128 patients underwent surgical procedures. The mean age was 59 years (range 17 – 84 years).

From 3 April, we started testing to exclude COVID-19 prior to surgery. The first seven patients had a negative low dose CT scan, then all patients had a preoperative SARS-CoV-2 throat swab 48 hours prior to surgery. Patients were asked to shield from the time of their swab to the day of surgery. Two patients returned positive swabs and were advised to self-isolate for 14 days and report any symptoms. These patients remained asymptomatic and went on to have surgery an average 22 days later with a repeat negative swab.

The majority of procedures were performed in sites aiming to be COVID-19 free, utilizing the partnership between the NHS and private hospitals. To streamline logistics and maximize capacity, we utilized a single shared operating diary and pooled lists. When listing patients, we documented tumour biology and menopausal status to allow for prioritization if theatre space became limited[2], although this was not required. Forty two patients had surgery in a COVID-19 site, and 86 patients had surgery in a private hospital aiming to be COVID-19 free. From 6 April, all procedures were at private hospitals aiming to be COVID-19 free.

Measures were implemented to comply with WHO and government guidelines[3]. Surgery was performed as day case and follow up virtually, when possible. All procedures were performed under general anaesthetic. In all, 126 patients had a unilateral procedure and two patients had a bilateral procedure.

At the postoperative telephone consultation (mean 28 days, range 14 – 42 days), patients were asked if they had developed a new continuous cough and/or high temperature or had a positive SARS-CoV-2 throat swab. In all, 127 patients remained asymptomatic postoperatively. One patient described cough and GI upset 2 days postoperatively - but did not seek medical attention and made a rapid recovery.

Our outcomes are a stark contrast to those described for patients undergoing elective surgery in Wuhan in the initial stages of the COVID-19 outbreak[2]. Of 34 patients undergoing a range of surgical procedure, all developed COVID-19 shortly after surgery. Out of these, 44·1 per cent of patients required intensive care admission and 20·5 per cent died.

The partnership between the NHS and private hospitals, along with strong leadership, team work and careful planning have allowed us to continue to offer safe breast surgery during the pandemic. Measures including preoperative SARS-CoV-2 throat swabs, a change in surgical practice and virtual follow-up have helped to safeguard patients and staff.

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2 Association of Breast Surgery. Statement form the association of the breast surgery, 15th March 2020. https://associationofbreastsurgery.org.uk/media/252009/abs-statement-150320-v2.pdf

3 COVIDSurg Collaborative. Global guidance for surgical care during the COVI-19 pandemic. *Br J Surg* 2020; https://doi.org/10.1002/bjs.11646 {Epub ahead of print].

4 Lei S, Jiang F, Su W, Chen C, Chen J, Mei W *et al.* Clinical characteristics and outcomes of patients undergoing surgeries during the incubation period of COVID-19 infection. *EClinicalMedicine* 2020; https://doi.org/10.1016/j.eclinm.2020.100331 [Epub ahead of print].