

Extraordinary emergency measures set up by a Breast Unit to prevent COVID-19: Report of our experience

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Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), previously named 2019-nCoV, is a new betacoronavirus (enveloped positive-sense single-stranded RNA virus) whose origin is still under debate.¹ Hypothesis regarding a zoonotic transmission was made due to genetic similarity with bat coronavirus and with the pangolin as an intermediate reservoir.^{2,3} Since first cases in Wuhan, rapid spread of SARS-CoV-2 infection in Italy from late February has caused sudden and dramatic changes in daily clinical practice of patients and hospital procedures.⁴ Our Breast Unit (BU) quickly responded by acting practice adjustments and embracing new paradigms of care, mostly based on common sense, to protect patients and staff from developing the coronavirus disease-19 (COVID-19).⁵ These measures are also justified by data, suggesting patients with cancer are more susceptible to infection and respiratory complications related to COVID-19 compared to those without cancer, due to immunosuppressive state caused by malignancy and chemotherapy.⁶ From February to March 2020, our team was committed to identify and prioritize all procedures deemed indispensable for the control of disease. Elective surgery like mastectomy, quadrantectomy, or partial breast resection has been postponed by some weeks, depending on the risk of disease with smaller delays for triple-negative and HER-2-positive breast cancer. A total of 175 patients were identified. Afterward, we aimed to reduce frequency of hospital admissions during COVID-19 outbreak. Preadmission screening with phone calls has proven effectiveness in preventing those with unrecognized symptoms from moving outside home, subsequently avoiding spread of SARS-CoV-2. Inside the hospital, obligatory pathways and optimized internal procedures were applied to minimize the stay, social contacts, and chaotic circulation. Medical staff and patients had separate entrances. Body temperature check with laser thermometer, scrub with sanitizer, and surgical masks were provided. To limit contact, patient visitors were not allowed to enter the building and information was given by phone call. Moreover, everyone

was asked to respect at least a one-meter safety distance and, when not possible (eg, blood sampling), not talking to each other was required. Passage of objects was limited (eg, pen, documents), and any medical tool (eg, phonendoscope) sanitized after use. Preadmission examinations were arranged 2 days before surgery, along with a nasopharyngeal swab and a basal chest CT scan to exclude bilateral bronchopneumonia. Lymphoscintigraphy was performed the day before or the morning of surgery, and access to surgical unit was guaranteed through a dedicated lift. Mastectomy without reconstruction or quadrantectomy with sentinel lymph node biopsy and axillary dissection were performed on day surgery regimen, and patient was discharged directly from recovery room. If reconstruction was needed, patient was admitted on the same day of surgery in a dedicated ward and discharged the day after. In case of patient with COVID-19 and no possibility to postpone surgery, a dedicated surgical theater and ward was available. Wound care, when possible, was entrusted to general practitioner. After a multi-disciplinary team consultation, therapeutic program was communicated to patient by phone. Since the beginning of these preventing measures, four of 34 (11.7%) members in BU were infected. Of these, one male surgeon underwent hospitalization with no need of intensive care unit and discharged 7 days later. The remaining 3 female members had no symptoms and observed self-quarantine. They came back work after being tested negative to nasopharyngeal swab. Among 175 patients, only 2 (1.1%) have contracted the SARS-CoV-2. We noticed that both BU and patients had a prevalence of female subjects. A recent paper showed a slight prevalence of male patient with diagnosis of COVID-19 and a higher fatality rate (2.8%) when compared to female (1.7%).⁷ It is possible that sex prevalence had influenced the low rate of infections observed, but further studies are needed. The number of SARS-CoV-2 infections reported in our BU is quite low if we consider that our hospital is located in Lombardy, the most affected region of Italy with over 12 000 deaths so far. We believe

that those actions had a tremendous impact on limiting the in-hospital spreading of SARS-CoV-2 and guaranteed a proper support to oncological patients in this difficult moment. We are confident that latest improvements in technology will allow development of alternative methods in communication, avoiding unnecessary contacts. The rapid changes we are facing during this pandemic gave us the chance to improve by optimizing resources and, somehow, pushed us to make a “crisis” (from Greek *krisis*, meaning “choice”) toward something new and unexpected.

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