



Abstract

During the COVID-19 pandemic, the amount of gynecological oncology procedures decreased, as patients were fearful of getting the virus pre-, peri-, and/or post-operatively.

Nonetheless, many of them desired to proceed with their procedures regardless of their reservations, being more concerned with the possibility of adverse health outcomes in the absence of intrusive interventions.

Hysterectomies were performed appropriately, whereas the number of endometriosis and fibroid-treating procedures was reduced.

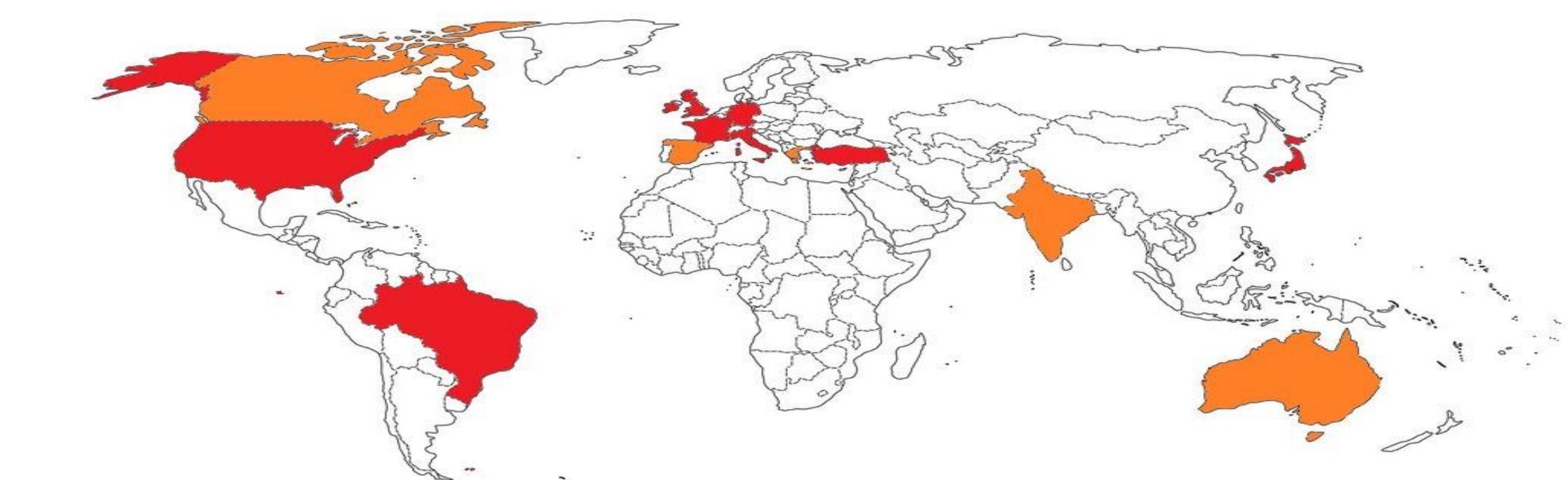
Patient access to diagnostic and healthcare providing services has been hampered by social restrictions and national lockdowns.

Urgent physician reallocation to COVID-19 reference units for pandemic mitigation has harmed gynecological oncology surgery performance significantly, and concerns about viral dissemination during minimally invasive surgeries have also been highlighted. Enhancing surgical guidelines is critical to enhancing physician and patient safety; N-95 face masks and face shields are required during gynecological oncology surgeries, and laparoscopic surgeries should be performed only with patient consent and detailed explanation of safety precautions during the procedure.

Additionally, healthcare providers should tell patients about the possibility of viral transmission during surgery, allowing them to decide whether or not to proceed.

Introduction

The novel coronavirus posed significant obstacles in the management of gynaecological oncology patients. Many countries, including UK and USA, have restricted surgical practice during the pandemic for 3 months as many surgical and gynaecological oncological associations raised the alarm for possible viral transmission through the abdomen. The countries that suffered the largest decrease in gynaecological oncology surgeries are shown in the figure below.



Gynecological cancer patients expressed significant anxiety about the progression of their disease as a result of the COVID-19 pandemic-related changes in care and expressed a desire to continue their treatment as planned despite the associated risks.

However, many gynecologic oncology patients, despite the recommendations, expressed their reluctance to undergo oncologic surgery after expressing greater fear of cancer recurrence and side effects than those related to COVID-19 dissemination.

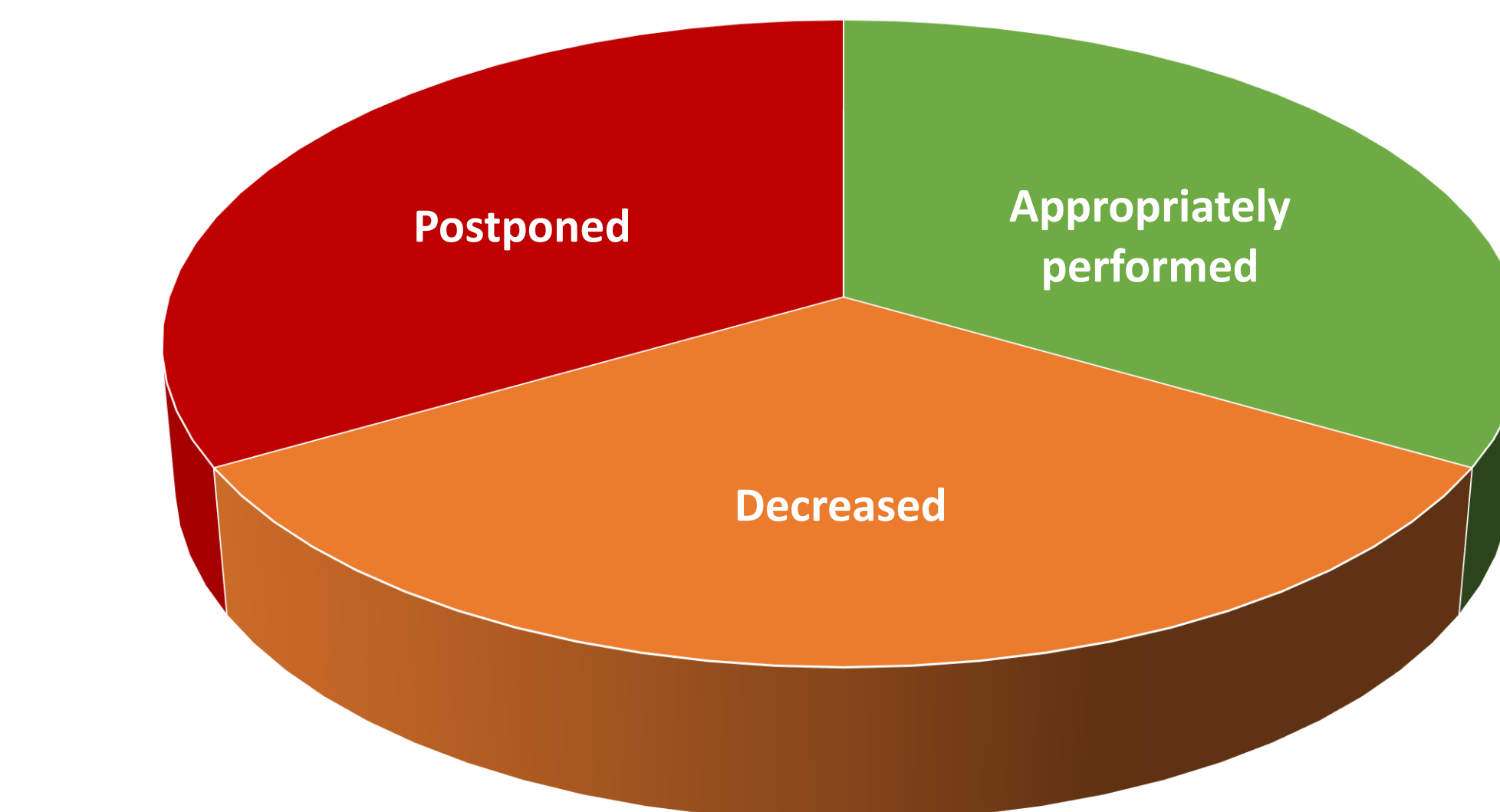
Materials and methods

A literature review of primary studies, research, and international data on the number of gynaecological oncology surgeries during the COVID-19-pandemic (2020-2021) compared to those in the year 2019 was performed.

Results

According to the **European Society of Gynaecological Endoscopy (ESGE)**, **Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)**, **Royal College of Obstetricians & Gynaecologists (RCOG)**, **American Association of Gynecologic Laparoscopists (AAGL)** and **COVIDSurg-Cancer**:

- elective surgeries for benign diseases should be delayed with a shift of focus to emergency surgeries and alternative medical management
- surgical management should be performed only when the condition is life-threatening



■ Hysterectomies
Cervical intraepithelial neoplasia
High-grade squamous intraepithelial lesions

■ Ovarian or tubal cancer or borderline ovarian tumours resection
Endometrial cancer (mostly radiotherapy and hormone therapy)
Endometriosis surgery
Fibroid-treating surgical procedures

■ Lumbo-aortic lymphadenectomy in patients with cervical cancer

Especially in cases of infected patients or patients with suspected infection, the following protection protocol should be followed preoperatively.

SARS-CoV-2 Rapid-test / PCR (+)

OP – cancellation until recovery (if possible)
Non-operative treatment modalities considered
Laparotomy (in case of emergency / recurrence)

Suspicion SARS-CoV-2 infection

COVID-19 virological testing (PCR) preoperatively
Laparoscopy planning after negative test result
Laparotomy planning

- Personal protective equipment (PPE) in the operating theatre (face shields, N95 filtered masks, gloves, scrubbing, donning, and doffing techniques)

- Reduction in non-urgent activities such as clinics, endoscopy, non-urgent elective surgery, and allocation of dedicated changing areas

- Disinfection of anesthetic machines following each use.

- Primary trocar insertion–Neither Open nor Hassen's technique should be used for abdominal entry because they can result in CO₂ leakage into the operating room during surgery. Balloon trocars should be used to ensure a complete seal when performing open surgery.
- Intraabdominal CO₂ pressure should be maintained at or below 8 mmHg.

- Reduction in lung volume, raised airway pressure, enhanced CO₂ retention, and reduced lung compliance occurs secondary to the pneumoperitoneum, increasing the perioperative risk of COVID-19.

- Closed passive smoke evacuation system to evacuate smoke.

- Complete pneumoperitoneum evacuation prior to specimen removal during hysterectomy.

- Before trocars' removal, complete pneumoperitoneum evacuation should be ensured.

Conclusions

Healthcare professionals should develop comprehensive context-specific pandemic preparedness plans that address the domains identified. Specific guidance should be updated on a continuous basis to incorporate new evidence as it becomes available during the COVID-19-pandemic. Specific guidance should be updated on a continuous basis to incorporate new evidence as it becomes available during the COVID-19 pandemic. Telemedicine is an interesting option for reducing the risk of COVID-19 infection by avoiding on-site visits. Nevertheless, it appears difficult to deny a newly diagnosed cancer patient a face-to-face consultation, as the patient requires clinical examination prior to surgery. Telemedical devices are also advantageous for postoperative or follow-up visits. Their primary limitation in this context is the requirement for physical examination of certain patients, such as those with uterine cancer. However, for the duration of the COVID-19 outbreak, remote postoperative consultations are preferable to face-to-face visits and can be used to identify patients who require in-person evaluation based on their reported symptoms. Additionally, healthcare providers should inform patients about the risk of virus transmission during surgery, allowing them to take initiatives whether or not to proceed.

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