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The lockdown effect on gynaecological cancer surgeries during the COVID-19 pandemic

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Abstract

The COVID-19 outbreak increased significantly the burden of hospital based services in an international setting. Facilities dealing with cancer cases had to cope with the burden of the disease and with the waiting lists that continuously grow as cancer patients tend to refer with increasing rates in referral centers. Surgical departments with oncological patients had to prioritize patients in order to help provide optimal care, without posing them at risk of a potential infection during their hospitalization. In the present article we report the experience of the Gynecologic oncology section of the First Department of Obstetrics and Gynecology of the National and Kapodistrian University of Athens during the first 12 months of the pandemic.

Key words: Covid-19, lockdown, pandemic, gynaecological cancer, surgical management

Introduction

At first a local outbreak of respiratory illness in Wuhan, Hubei province, China, was declared in December 2019. A novel coronavirus was identified on 12 January 2020, referred as (COVID-19) and later named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The high transmissibility of the virus was quickly confirmed, and within two months the disease has spread in more than 200 countries leading the World Health Organization to characterize it as a global pandemic disease early in March 2020¹.

The incomparable outbreak of coronavirus changed daily activities in an international setting.

Governments and health professionals had to confront this challenge by applying restrictive measures, including public use of mask, social distancing and lockdown (restriction of non-essential mobility), in order to slow down disease's spread.

The impact of COVID-19 is substantial and has already caused significant economic, social, and health-care disruptions worldwide. This new reality emerged several other side effects that indirectly affected public healthcare². In gynecology oncology the disruption of the healthcare system because of the changes that COVID-19 brought and the fear of infection that patients experience in hospitals

has led to significant delays in the diagnosis and treatment of gynecological cancer patients, slowing down factors that progressively improved with copious advancements in the surgical and pharmaceutical techniques over the last 40 year, and which significantly increased survival rates. The restrictive measures that were decided during this outbreak lead to the adoption of novel algorithms that aim to sustain a balance between the need for timely management of oncological patients and the need to maintain a sufficient amount of resources (in terms of staff and medical devices) that will be enough to deal with the medical needs of COVID-19 pandemic^{3,4}. Despite the efforts in the field it is feared that the course of oncological patients may be compromised taking this information in mind as they may appear in advanced stage, and the possibility to be treated by surgery is lower given the measures that restrict the number of operations and the accompanying surgical complications during the infectious pandemic. It is evaluated that approximately 28.000 operations will be postponed or canceled and other options in treatment such as neoadjuvant chemotherapy, radiation or hormonal treatment will be chosen.

In Greece the restriction measures were applied early during the first wave of the outbreak and the national healthcare system reduced scheduled healthcare activities to avoid contamination elective cases with COVID-19 during the lockdown period. Although there was a national restriction for all elective non-emergency gynecological surgeries there was an exception for emergency, high-risk and oncological surgeries.

Materials and methods

In the present study we retrospectively reviewed the patients with gynecological cancer operated in our hospital during the first lockdown period in Greece (between 13 March 2020 and 30 May 2020)

and we compared the results with the patients of the corresponding time period in 2019. We also examine the number of patients that were referred for neoadjuvant chemotherapy or radiotherapy between those periods.

Results

The gynecological oncological operations performed in our hospital during the lockdown period of the first pandemic wave were not altered by the outbreak (153 operation in 2019 and 130 operations in 2020). During the early phases of the quarantine operations associated with low and mild postoperative morbidity were preferred as there was a lack of available data concerning the potential impact of COVID-19 on the oncological and postoperative safety of larger operations. After the introduction of a series of guidelines that suggested to give priority to high grade disease ovarian cancer cases increased and exceeded the number of other operations (Figure 1). In total there was no difference in ovarian cancer surgeries (34 vs 31) and the number of primary surgical treatment patients was not affected by the pandemic (20 vs 19). In the same point of view the number of patients referred to neoadjuvant chemotherapy was the same between the two periods. No significant difference was obtained in the endometrial vaginal and cervical cancer surgeries and the number of recurrences surgically treated was the same. Contrastingly there was a significant decrease in endoscopic procedures and diagnostic biopsies (72 vs 53) and the fertility sparing surgeries were postponed from patients at a later date.

In accordance with international consensus guidelines the stage and type of cancer, the grade of malignancy and potential comorbidities were the main factors that accounted for the decision of the optimal mode of treatment (Table 1).

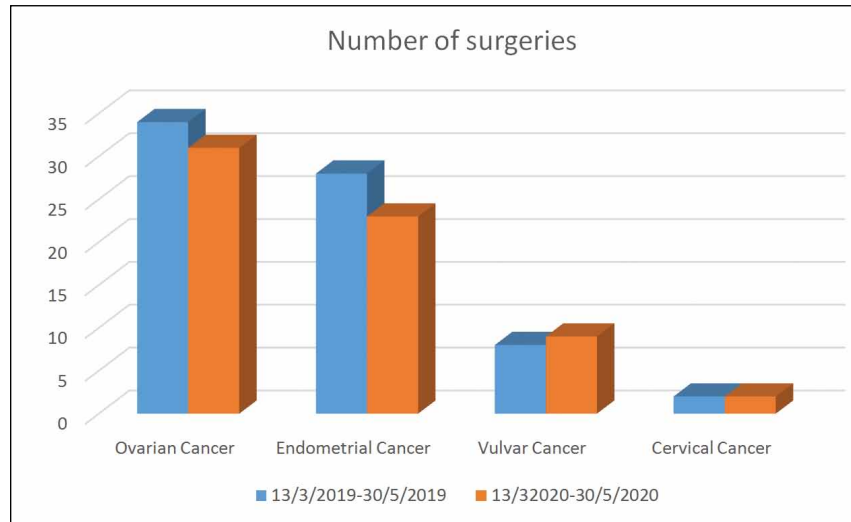


Figure 1. Gynecological cancer surgeries on both periods.

Table 1. Type of procedures on both periods.

	13/3/2019 – 30/05/2019	13/3/2020 – 30/5/2020
OVARIAN CANCER	34	31
Primary Cytoreduction	20	19
Interval – Late Debulking	5	6
Neoadjuvant Chemotherapy	7	7
Final Benign Histology	9	6
ENDOMETRIAL CANCER	28	23
CERVICAL CANCER	2	2
Radical Hysterectomy	1	2
Trachylectomy	1	-
RECURRENCE	7	7
Ovarian Cancer	3	3
Endometrial Cancer	2	-
Cervical Cancer	-	1
Vulvar Cancer	2	3
REOPERATION	2	5
DIAGNOSTIC LAPAROSCOPY	11	8
MINOR PROCEDURE	61	45
Pigtail - Cystoscopy	42	31
EUA - BIOPSY - D&G	19	14
FERTILITY SPARRING SURGERY	5	0

Conclusions

In conclusion, the findings of our study suggest that at the first wave of the pandemic lockdown, the operations conducted in our department did not alter. Although COVID-19 affected the treatment of gynecologic cancer patients, both in terms of prioritization and identification of strategies to reduce hospital access and length of stay, gynecological cancer patients expressed significant anxiety about progression of their disease due to modifications of care related to the pandemic and wished to pursue their treatment as planned despite the associated risks⁵.

During the early time of the outbreak patients with lower morbidity and early stages of cancer were considered as eligible in order to avoid the potential drawbacks of the comorbidity that would arise. After the introduction of the guidelines that were commissioned by ESGO effort was undertaken to avoid the compromise of cases with aggressive forms of cancer that were in danger of severe effect of their survival, so all patients were evaluated on a personalized level, considering patient risk factors, comorbidities, to minimize the morbidity and the

hospitalization, and the aggressiveness of the tumor. Also in accordance with international consensus guidelines the stage and type of cancer, the grade of malignancy and potential comorbidities were the main factors that accounted for the decision of the optimal mode of treatment. Taking in mind that the timeframe between diagnosis and treatment of patients should remain in acceptable limits efforts were made to provide optimal survival outcomes⁶. To accomplish this, alternative algorithms, including the implementation of neo-adjuvant chemo- or radio- therapy, whenever this is considered feasible, should be considered as the second wave of COVID-19 is ongoing and the number of patients seeking care remains constant⁷.

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Conflict of interests

The authors declare that there is no conflict of interest.

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None to disclose for all authors.

Ethics statement

Considered that data were anonymously collected and that the study had no impact at all on patients care, no specific written informed consent was required.

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