



## A Prospective Care Pathway Analysis to Assess the Impact of the SARS-CoV-2 Pandemic on the Incidence and Management of Advanced Ovarian Cancers

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### Editorial

During the SARS-CoV-2 pandemic, health systems needed to optimize their organization to warrant cancer diagnosis and treatment in a global context of limited resources. As a result, cancer society's had to rapidly adapt cancer care recommendations to minimize the impact of the pandemic on cancer prognosis, with a particular interest in those diseases requiring a complex surgical approach as ovarian cancer.

Our institution, Oscar Lambret Center, is a referral National Comprehensive Cancer Center focused on gynecological malignancies and accredited by the European Society of Gynecology Oncology (ESGO). A broad institutional effort has been made since the beginning of the SARS-CoV-2 pandemic according to ESMO recommendations for the treatment of patients affected with advanced Epithelial Ovarian Cancer (EOC) [1]. Since 2019, an innovative cancer pathway has been implemented for newly diagnosed EOC, which has allowed us to monitor the operative morbidity and mortality in real-time. This pathway, labeled as Turquoise course (the official color of ovarian cancer awareness), is prospectively monitoring and updating many relevant events related to surgery and chemotherapy, including reoperations, interventional radiology procedures, readmissions, and deaths. The aim of this cancer pathway was initially to assess and improve the efficiency of care. Although the long-term impact of implementing this pathway on the survival rates cannot yet be assessed, some interesting data regarding the improvement of quality indicators for ovarian cancer care have been obtained. For example, the mean time required to obtain the anatomopathological report from tumor biopsy was reduced from nine to five days compared to 2018 and 2019. This allows the patient to be quickly informed about her pathology and, in parallel, a faster organization of the treatment.

However, the relevance of this pathway, where patients are prospectively recorded, has emerged with the eruption of the SARS-CoV-2 pandemic. Initial data of the pathway shows alarming figures of the impact of the pandemic in ovarian cancer care. Table 1 shows the distribution of enrollment by year of diagnosis. Overall, between 2017 and 2021, 300 patients were enrolled in the pathway. During the period 2017 to 2019, the mean of new patients enrolled per year was 92, while in 2020, this number dropped to 65.

Interestingly, from January and April 2020, which correspond to the beginning of the pandemic, only 15 patients were addressed to our institution instead of the expected 30 patients. The pandemic has asymmetrically impacted the geographic distribution of patients over 2020, and patients living in departments far from the metropolis (LMFI, Lille Métropole Flandres Intérieures) have mainly been under diagnosed during this period (Table 2). Comparative analysis of the figures in other hospitals of the department observed the absence of an increased activity elsewhere in the territory due to a redistribution of patients towards other institutions. We can fear that the pandemic has further widened geographic disparities in access to the healthcare system.

Surgical management has also been deeply impacted during the pandemic. Table 3 shows the number of debulking procedures and the rate of upfront debulking surgery at our institution from 2018. According to ESMO recommendations, upfront debulking surgery for advanced EOC was considered an oncological treatment of intermediate priority [1]. These recommendations aimed to avoid extended debulking procedures requiring a long patient length of hospital stay since Neoadjuvant Chemotherapy (NCT) decreases initial tumor load leading to less radical interval

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**Table 1:** Distribution of new patients enrolled in the Turquoise pathway.

Year of diagnosis	Number of patients enrolled
2018	78
2019	107
2020	63
JAN-APR 2021	17

**Table 2:** Distribution of new patients enrolled in the Turquoise pathway, according to their place of residence.

Year of diagnosis	Patient's place of residence n (%)		
	GHT LFMI	Outside GHT LMFI	Outside region
2018	18 (23.1)	59 (75.6)	1 (1.3)
2019	30 (28)	75 (70.1)	2 (1.9)
2020	23 (36.5)	39 (61.9)	1 (1.6)
JAN-APR 2021	5 (33.3)	10 (66.7)	-

**Table 3:** Changes in the number and proportion of first surgery in patients operated on.

Year of surgery	Number of laparotomies	First surgery
		n (%)
2018	68	20 (39.2)
2019	64	27 (42.2)
2020	56	14 (25)
JAN-APR 2021	17	2 (13.3)

debulking surgery. This recommendation was later supported by the publication of the SCORPION trial [2]. The results of this recent randomized trial have concluded to the no-inferiority of NCT vs. Primary Debulking Surgery (PDS) with no difference in progression-free survival with a significant decrease in postoperative morbidity in the NCT group. The evolution of our data (Table 3) illustrates this tendency: The proportion of patients who underwent PDS dropped from around 40% in 2018 and 2019 to 25% in 2020. Preliminary results from January to April 2021 confirm this tendency with only 13% in our institution. In the same line, other studies also emphasize that NCT should be preferred to PDS for newly diagnosed advanced ovarian cancer in times of pandemic [3]. The significant decrease in the rate of first surgery could be explained by different reasons, including the prioritization of chemotherapy to avoid overloading of continuing or intensive care units, late disease diagnosis, and a poorer performance status of the patients.

The impact of the pandemic on patient survival remains unknown, and we will have to wait some years with a close follow-up of the patients. The analysis focused on the data from this pathway allows a better understanding of the epidemiological evolution than the analysis of the overall activity of the institution. Interestingly, while the number of cytoreductive procedures for ovarian cancer decreased in 2020, the total number of surgeries for gynecological cancer remained stable. Considering that interval cytoreductive surgery may be performed after three or six courses of neoadjuvant chemotherapy, it is to be expected that surgical outcomes for some patients will be found within the statistics of 2022. Therefore, the results of the surgical activity are still to come.

In the organization of departments of surgery, priority should

be given to carcinogenic emergencies, and we can affirm that the outcomes of ovarian cancer are highly dependent on the timing of the diagnosis and the initial management. In this sense, general practitioners should be regularly trained to recognize symptoms of ovarian cancer to orientate the diagnosis rapidly. Abdominal imaging and diagnostic laparoscopic by well-trained surgeons should not be delayed. A recent Italian survey reported a reduction of 20% to 25% of the surgical activity for ovarian cancer when compared with before the pandemic [4]. The challenge during this unprecedented pandemic was not to delay either the diagnosis or the treatment of EOC [5]. Diagnostic laparoscopic or radiological biopsy should not be delayed in case of suspected carcinosis [6].

One of the priorities of healthcare systems was to dedicate the activity of a determined number of operating rooms to surgical oncology to treat severe pathologies such as ovarian cancer. However, has the population been awarded of this organization? A recent survey performed on patients treated for gynecological malignancies during the pandemic showed that 89% of women included expressed a high level of concern about cancer treatment during the pandemic with anxiety and stress related to SARS-CoV-2 infection and fear of the consequences of the pandemic on access to the healthcare system [7]. Far from being a theoretical hypothesis, the repercussions of the pandemic in oncology begin to be known: Delayed diagnosis and treatment, modified therapeutic strategies, and impaired quality of life [8]. Hopefully, efforts to communicate and to inform women of the organization of care will lead to timely diagnosis and management of adnexal cancers.

## References

- Colombo I, Zaccarelli E, Del Grande M, Tomao F, Multinu F, Betella I, et al. ESMO management and treatment adapted recommendations in the COVID-19 era: Gynaecological malignancies. *ESMO Open*. 2020;5(Suppl 3):e000827.
- Fagotti A, Ferrandina MG, Vizzielli G, Pasciuto T, Fanfani F, Gallotta V, et al. Randomized trial of primary debulking surgery versus neoadjuvant chemotherapy for advanced epithelial ovarian cancer (SCORPION-NCT01461850). *Int J Gynecol Cancer*. 2020;30(11):1657-64.
- Chen Z, Zhang C, Yin J, Xin X, Li H, Wang Y, et al. Challenges and opportunities for ovarian cancer management in the epidemic of Covid-19: Lessons learned from Wuhan, China. *J Ovarian Res*. 2021;14(1):35.
- Bogani G, Apolone G, Ditto A, Scambia G, Panici PB, Angioli R, et al. Impact of COVID-19 in gynecologic oncology: A Nationwide Italian Survey of the SIGO and MITO groups. *J Gynecol Oncol*. 2020;31(6):e92.
- Chiofalo B, Baiocco E, Mancini E, Vocaturo G, Cutillo G, Vincenzoni C, et al. Practical recommendations for gynecologic surgery during the COVID-19 pandemic. *Int J Gynaecol Obstet*. 2020;150(2):146-50.
- Bogani G, Casarin J, Pinelli C, Di Donato V, Bosio S, Ruisi S, et al. Management of patients with ovarian cancer in the COVID-19 era. *J Surg Oncol*. 2020;122(2):122-3.
- Gultekin M, Ak S, Ayhan A, Strojna A, Pletnev A, Fagotti A, et al. Perspectives, fears and expectations of patients with gynaecological cancers during the COVID-19 pandemic: A Pan-European study of the European Network of Gynaecological Cancer Advocacy Groups (ENGAGe). *Cancer Med*. 2021;10(1):208-19.
- Jacome LS, Deshmukh SK, Thulasiraman P, Holliday NP, Singh S. Impact of COVID-19 pandemic on ovarian cancer management: Adjusting to the new normal. *Cancer Manag Res*. 2021;13:359-66.