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## Treating cancer patients in times of COVID-19 pandemic: A virtual women cancers multidisciplinary meeting experience

On the 11th of March 2020, World Health Organization (WHO) declared COVID-19 a pandemic [1]. The first case was reported on the 31st of December 2019, in Wuhan, China [1]. Since then, the causal agent, SARS-CoV-2 [2], caused the shutdown of the biggest cities around the world. With a basic reproduction number  $R_0 = 2.2$  [3], social distancing is a must since the virus is contagious through close contact [4]. In this view, teleconsultations were recommended in numerous situations and especially for cancer patients who are at a higher risk of developing severe complications [5]. While the whole world is on halt, cancer patients still need to be managed adequately in order not to lose chances of cure due to delays. On the other hand, cancer treatment decision is complex and multimodal, so in order to insure the best possible care for patients, physicians from different specializations group in Multidisciplinary Teams (MDT). Nowadays, MDT are widely accepted as the gold standard for oncological patient care [6], in particular when it comes to the treatment of breast cancer [7]. Data even shows that MDM sometimes changes the whole diagnostic in the frame of gynecological tumors [8]. In ovarian cancer, it improves [9] the fiveyear survival rate. Multidisciplinary tumor boards in obstetricsgynecology usually include at least an oncologist, a gynecologist, a radiation oncologist, a radiologist, a pathologist, sometimes general surgeons and when needed, a plastic surgeon. Before COVID-19 era, our Multidisciplinary Meetings (MDM) were held in a dedicated room in the presence of all the practitioners above. With the outbreak and strict social distancing rules, MDM were facing challenges. To insure timely response to cancer patients and, at the same time, to reduce the risk on both physicians and patients to whom the virus could eventually be transmitted from a member of the board, in many centers around the world, online MDM are being held [10,11]. Our team, at Beirut's Saint Joseph University tertiary center Hôtel Dieu de France, responded to the challenge. Wewill discuss here our experience from a women cancer tumor board (involving breast and gynecologic oncology).

When the pandemic hit our country, our hospital was selected as a COVID center. It mobilized its task force to fight it. In the meantime, accrual of gynecologic and breast cancer cases needing MDT did not stop. Therefore, we organized a virtual MDM meeting via videoconference allowing social distancing. We invited concerned professionals via an electronic link sent to their emails. In addition to video communication, this application allows screen sharing. We were able to analyze shared documents, MRI mammograms and slides from pathology with decisional impact. Each participant was able to clearly explain his point of view using good quality images obtained with this application, unlike what could be seen on projection screens. Another strong point is that in a center like ours, all our patients' data are gathered into one system, DxCare, which screen is shared at the same time to all the participants. It abolished the need to print papers with sensitive information on patients that may be left behind after our MDM. We were somehow surprised by the increased number of participants in comparison with regular physical meetings. Retrospectively, the team found that experience enjoyable and more convenient. Everyone can meet from his or her setting, reducing the need for physical space and the burden of mobilizing everyone to attend, especially when schedules are tight. Moreover, the organizational aspects seemed better as only one person can talk or share content at a time, rendering it more efficient and less timeconsuming. A final advantage is that decision-making was not influenced by the physical presence of a person that might be more imposing than others. In regular physical meetings, this could lead to biased decisions.

On the other hand, online boards in gynecological oncology have their setbacks too. The first concern is patient's privacy. In fact, developing technologies seemed to be a perfect opportunity for people to steal data and sell it. With COVID-19 pandemic, more and more private information are being exchanged, making it easier for hackers to find their content to sell. Developing more secure videoconference platforms intended for medical professionals tackles the issue. In fact, at the first weeks of this COVID-19 pandemic, our institutional IT warned us about the possibility of hacking sensitive information through Zoom. Thus, we used momentarily another communication platform, Microsoft Teams, until the bug was fixed to protect cancer patients' data. This is our ethical duty and was our main concern. The members of the team were more cautious not to share unnecessary information and they were constantly aware of who is joining the meeting session. Due to our uneven internet network connection in Lebanon, some key decisional persons were not able to connect or continue the meeting until the end. Another major problem is the distraction effect of the internet and the loss of attention that sometimes happened, missing critical information thus affecting the decisional process. Finally, when we talk about MDT in oncology, we talk about a team. In



this formation, human-to-human connection creates an essential chemistry for teamwork, an element that patients look at as essential [12]. Relying exclusively on videoconference might reduce the will to collaborate and the friendliness between the team members, a thing that affects the patient's morale and trust, especially when they are fighting cancer.

In addition to board discussion, topics such as staging, diagnosing and treatment strategy, COVID-19 is a new complex factor, since at the beginning, there were no guidelines on how to treat the patients in the presence of the virus. What were the possible interactions of surgery or treatment with COVID-19? When was COVID testing essential? Fortunately, scientific societies have published guidelines for cancer patient's management during COVID-19. For example, the European Society of Medical Oncology (ESMO) published quidelines for cervical cancer where it states that a MDT should make the priority decision making according to the patient condition and available resources (such as ICU capacity for post-surgery complications, available Personal Protective Equipment (PPE)...) [13]. The same applies for endometrial [14] and epithelial ovarian cancer [15]. For breast cancer, recommendations are more precise in terms of patient's prioritization. Nonetheless, MDT have a major role in treatment strategy especially in patients characterized as high priority where ESMO preconizes a case by case MDT discussion [16]. Radio oncological societies too, such as ASTRO [17] and SFRO [18], published guidance in gynecological tumors treatment during these times. In conclusion, these virtual tumor boards that were overlooked for an extended period helped us to overcome the lockdown during this COVID-19 crisis. It allowed us to improve the care for our patients and make prompt medical decisions, reducing the harm on some patients that have cancers sensitive to treatment delays. From our side, at Hôtel Dieu de France, the experience was very encouraging and participants were satisfied and pleased. In early data [11] from a center in Pittsburgh, Pennsylvania, USA, a majority of participants preferred to continue meetings via video technology even when things will get back to normal. We extrapolate from discussions and exchanges with colleagues from around the globe who seemed very satisfied by the virtual MDM experience that videos MDM are widely accepted and may replace classical in-person MDM. Shall we be able to go back and meet in our usual place at the hospital after containment, which is ending very soon? Will the pandemic reshape the future of MDM? Only time and further data will tell.

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## References

 Coronavirus Disease (COVID-19) - events as they happen [Internet]. [cited 2020 Apr 28]. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen.

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- [2] Severe acute respiratory syndrome-related coronavirus: The species and its viruses-a statement of the Coronavirus Study Group | bioRxiv [Internet]. [cited 2020 Apr 28]. Available from: https://www.biorxiv.org/content/ 10.1101/2020.02.07.937862v1.
- [3] Riou J, Althaus CL. Pattern of early human-to-human transmission of Wuhan 2019 novel coronavirus (2019-nCoV), December 2019 to January 2020. Eurosurveillance 2020;25(4) [Cited 2020 Apr 28. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC7001239/].
- [4] Li Q, Guan X, Wu P, Wang X, Zhou L, Tong Y, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus – Infected pneumonia. N Engl J Med 2020;382(13):1199–207.
- [5] Liang W, Guan W, Chen R, Wang W, Li J, Xu K, et al. Cancer patients in SARS-CoV-2 infection: a nationwide analysis in China. Lancet Oncol 2020;21(3):335–7.
- [6] Soukup T, Lamb BW, Arora S, Darzi A, Sevdalis N, Green JS. Successful strategies in implementing a multidisciplinary team working in the care of patients with cancer: an overview and synthesis of the available literature. J Multidiscip Healthc 2018;11:49–61.
- [7] Rajan S, Foreman J, Wallis MG, Caldas C, Britton P. Multidisciplinary decisions in breast cancer: does the patient receive what the team has recommended? Br J Cancer 2013;108(12):2442–7.
- [8] Multidisciplinary management of cancer patients: chasing a shadow or real value? An overview of the literature [Internet]. [cited 2020 Apr 30]. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC3410834/.
- [9] Junor EJ, Hole DJ, Gillis CR. Management of ovarian cancer: referral to a multidisciplinary team matters. Br J Cancer 1994;70(2):363–70.
- [10] Salari A, Shirkhoda M. COVID-19 pandemic & head and neck cancer patients management: the role of virtual multidisciplinary team meetings. Oral Oncol 2020 [Cited 2020 Apr 28. Available from: https://www.ncbi. nlm.nih.gov/pmc/articles/PMC7142701/].
- [11] Dharmarajan H, Anderson JL, Kim S, Sridharan S, Duvvuri U, Ferris RL, et al. Transition to a virtual multidisciplinary tumor board during the COVID-19 pandemic: University of Pittsburgh experience. Head Neck [Internet]. [cited 2020 Apr 28];n/a(n/a). Available from: https://onlinelibrary. wiley.com/doi/abs/10.1002/hed.26195.
- [12] Narratives, health, and healing: communication theory, research, and practice. In: Harter LM, Japp PM, Beck CS, editors. Narratives health and healing: Communication theory research and practice, xvii. Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers; 2005p. 516.
- [13] ESMO. ESMO management and treatment adapted recommendations in the COVID-19 era: Cervical cancer [Internet]. [cited 2020 Apr 29]. Available from: https://www.esmo.org/guidelines/cancer-patient-managementduring-the-covid-19-pandemic/gynaecological-malignancies-cervicalcancer-in-the-covid-19-era.
- [14] ESMO. ESMO management and treatment adapted recommendations in the COVID-19 era: Endometrial cancer [Internet]. [cited 2020 Apr 29]. Available from: https://www.esmo.org/guidelines/cancer-patient-management-during-the-covid-19-pandemic/gynaecological-malignanciesendometrial-cancer-in-the-covid-19-era.
- [15] ESMO. ESMO management and treatment adapted recommendations in the COVID-19 era: Epithelial ovarian cancer [Internet]. [cited 2020 Apr 29]. Available from: https://www.esmo.org/guidelines/cancer-patient-management-during-the-covid-19-pandemic/gynaecological-malignanciesepithelial-ovarian-cancer-in-the-covid-19-era.
- [16] ESMO. ESMO management and treatment adapted recommendations in the COVID-19 era: Breast cancer [Internet]. [cited 2020 Apr 29]. Available from: https://www.esmo.org/guidelines/cancer-patientmanagement-during-the-covid-19-pandemic/breast-cancer-in-thecovid-19-era.
- [17] Recommendations for prioritization, treatment and triage of breast cancer patients during the COVID-19 pandemic: executive summary. American College of Surgeons; 2020 [Cited 2020 May 1. Available from: https:// www.facs.org/quality-programs/cancer/executive-summary].

[18] Giraud P, Monpetit E, Lisbona A, Chargari C, Marchesi V, Dieudonné A. Épidémie de COVID-19: recommandations à l'usage des professionnels de l'oncologie radiothérapie. Cancer/Radiothérapie 2020;24(2):87.

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