LBA82 Influenza-like illness and SARS-Cov-2 in the multicenter, prospective, observational INVIDIa-2 study (INfluenza Vaccine Indication During therapy with Immune checkpoint inhibitors: A transversal challenge): A FICOG study

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Background: The susceptibility of advanced cancer patients treated with immune checkpoint inhibitors (ICI) for viral infections has not been investigated. Currently, there are no robust data supporting the efficacy, safety and recommendation for influenza vaccination in cancer patients receiving ICI.

Methods: The prospective, multicenter, observational INVIDIa-2 study investigated the clinical efficacy of influenza vaccination in advanced cancer patients with solid tumors receiving ICI between October 2019 and January 2020. The incidence of influenza-like illness (ILI, primary endpoint) was observed until April 30, 2020. Secondary endpoints included a non-prespecified analysis for COVID-19.

Results: The study enrolled 1279 patients; 1188 were evaluable. Of them, 11 patients developed ILI symptoms with confirmed diagnosis of COVID-19 (incidence of 0.9% and lethality of 72%, irrespective of the flu vaccination). Of the remaining 1177 patients, 574 received flu vaccination (48.8%). The ILI incidence was 7.7% (91 patients of 1177). Patients receiving the flu vaccine were significantly more frequently elderly ($p<0.0001$), former or active smokers ($p<0.0001$), affected by lung cancer ($p=0.017$) and by non-cancer comorbidities ($p<0.0001$) when compared to unvaccinated patients. The flu vaccine did not prevent ILI in the study population, irrespective of the vaccine type (quadrivalent *vs* trivalent, adjuvated *vs* non): the incidence of ILI was 8.2% in vaccinated *vs* 7.3% in unvaccinated patients ($p=0.57$). ILI complications were significantly less frequent for patients receiving flu vaccine (12.8% vs 40.9%, $p=0.002$). Hospital admission due to ILI occurred for 10 patients (11% of ILI cases; 7 were unvaccinated). The ILI lethality was 2.2% (2 of 91 patients, both unvaccinated). Among vaccinated patients, those receiving adjuvated vaccines had lower incidence of ILI (4.8% *vs* 9.9%, $p=0.046$).

Conclusions: Flu vaccination was not effective for ILI prevention, nor for COVID-19. Nevertheless, it reduced ILI complications, with no ILI-related deaths in vaccinated patients. We recommend the vaccine in ICI-treated cancer patients.

Clinical trial identification: Eudract number of the trial: 2020-002603-18.

Legal entity responsible for the study: FICOG Federation of Italian Cooperative Oncology Groups.

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LBA83 Outcomes of the 2019 novel coronavirus in patients with or without a history of cancer: A multi-centre North London experience

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Background: The high prevalence and associated healthcare, social and economic challenges of the 2019 novel coronavirus disease (COVID-19) suggests this pandemic is likely to have a major impact on cancer management, and has been shown to potentially have worse outcomes in this cohort of vulnerable patients. This study aims to compare the outcomes of RT-PCR confirmed COVID-19 positive disease in patients with or without a history of cancer.

Methods: We retrospectively collected clinical, pathological and radiological characteristics and outcomes of COVID-19 RT-PCR positive cancer patients treated consecutively in 5 different North London hospitals (cohort A) and compared their outcomes to consecutively admitted COVID-19 positive patients without a history of cancer (cohort B). Patients were matched for age, gender and comorbidty and treated during the same time period (1st March- 30th April 2020).

Results: The median age in both cohorts was 74 years, with 67% male, and comprised of 30 patients with cancer, and 90 without (1:3 ratio). For cohort B, 579 patients without a history of cancer and consecutively admitted were screened from the primary London hospital, 105 were COVID-19 positive and 90 were matched and included. Excluding cancer, both cohorts had a median of 2 comorbidities. The odds ratio (OR) for mortality, comparing patients with cancer to those without, was 1.05 (95% CI 0.4-2.5), and severe outcome (OR 0.89, 95% CI 0.4-2.0) suggesting no increased risk of death or a severe outcome in patients with cancer. Cancer patients who received systemic treatment within 28 days had an OR for mortality of 4.05 (95% CI 0.68-23.95), p=0.12. On presentation anaemia, hypokalaemia, hypoalbuminaemia and hypoproteinaemia were identified predominantly in cohort A. Median duration of admission was 8 days for cancer patients and 7 days for non-cancer.

Conclusions: Old age, late stage of cancer diagnosis and multiple co-morbidities adversely influence the outcome of patients with COVID-19 positive patients. These data do not demonstrate a higher risk to cancer patients compared to their non-cancer counterparts. If a second peak of pandemic strikes, a coordinated response of all overlapping specialities in the fight against cancer is required.

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1678P_PR The impact of COVID-19 pandemic on cancer care: A global collaborative study

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Background: COVID-19 pandemic impacted healthcare systems globally and resulted in the interruption of usual care in many healthcare facilities exposing vulnerable cancer patients to significant risks. Our study aimed to evaluate the impact of this pandemic on cancer care worldwide.

Methods: We conducted a cross-sectional study using validated electronic questionnaire of 51 items via SurveyMonkey©. The tool was distributed to leaders in oncology centers worldwide. The questionnaire obtained information on the capacity and services offered at these centers, magnitude of interruption of care, reasons for

interruption, challenges faced, interventions implemented, and the estimation of patient harm during the pandemic.

Results: 356 centers from 54 countries across six continents participated between April 21 and May 8, 2020. These centers serve about 700,000 new cancer patients a year. Most of them (88%) reported facing challenges in providing care during the pandemic. 54% and 45% of centers reported cases of COVID-19 infection among their patients and staff, respectively. Although 51% reduced services as part of a pre-emptive strategy, other common reasons included overwhelmed system (20%), lack of personal protective equipment (19%), staff shortage (18%), and restricted access to medications (9.7%). Missing at least one cycle of therapy by more than 10% of patients was reported in 46% of the centers. Most centers implemented virtual clinics (83.6%) and virtual tumor boards (93%) and participants believed these will persist beyond the pandemic (55.5% and 60%, respectively). Centers performed routine tests in laboratories near patients' homes (76%) and shipped medications to patients (68.6%). Participants reported patients' exposure to harm from interruption of cancer-specific care (36.5%) and non-cancer related care (39%) with some centers estimating up to 80% of their patients exposed to some harm. Only 16% of the centers reported services are back to baseline at the time of completing the survey.

Conclusions: The detrimental impact of COVID-19 pandemic on cancer care is widespread with varying magnitude among centers worldwide. Further research to assess this impact at the patient level is required. A "new normal" of cancer care emerged with emphasis on telehealth and care delivery closer to home.

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