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19. Future pts should then be encouraged to participate, if indicated. Considering the small numbers of pts in our cohorts, the foreseen trend toward a higher infection risk and the subsequent implications should be further explored in larger populations.

**Legal entity responsible for the study:** The authors.

**Funding:** Has not received any funding.

**Disclosure:** G Curigliano: Financial Interests, Funding: Roche; Financial Interests, Funding: Novartis; Financial Interests, Funding: Lilly; Financial Interests, Funding: Pfizer; Financial Interests, Funding: Seattle Genetics. All other authors have declared no conflicts of interest.

<https://doi.org/10.1016/j.annonc.2021.08.1576>

### 1584P Prevalence and risk factors of COVID-19 in cancer patients: A prospective monocentric study

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**Background:** The COVID-19 is a worldwide health threat because of its severity and rapid spread. Cancer patients have been reported to be at an increased risk of COVID-19 infection. We aimed to assess the prevalence of COVID-19 in Tunisian cancer patients and to identify its risk factors.

**Methods:** A prospective study was conducted at the department of Medical Oncology in Sfax from November 2020 to February 2021. We analyzed data of 226 patients treated for solid cancer. We used the modified Milano Policlinico ONCOVID Score to quantify the risk of infection in patients with cancer. We defined 3 groups of risk (score<4: low risk, score= 4-6: intermediate risk and score>6: high risk).

**Results:** Patients aged under 70 years represented 85%. The sex-ratio was 0.5. The most common primary tumors were breast cancer (37%), colorectal (22%), ovarian (7.5%) and lung cancer (5.5%). Metastatic disease was observed in 58%. 95% had recently received anticancer treatment (chemotherapy n=171), (hormonotherapy/targeted therapy n=44). Primary lung cancer or pulmonary metastases were founded in 16%. 22% of patients had a history of thoracic radiotherapy. Among 226 cancer patients, 19 patients (8.4%) had COVID19 disease. Fifteen patients (79%) presented with symptoms such as fever, dyspnea, cough, myalgia and ageusia/anomia. A severe form of COVID-19 requiring hospitalization was seen in 4 cases (21%). 47 % had an intermediate and high risk of infection. COVID-19 infection was correlated with intermediate or high risk ( $p=0.018$ ,  $\chi^2=18.4$ ,  $ddl=8$ ), age <70 years ( $p=0.035$ ,  $\chi^2=4.437$ ,  $ddl=1$ ) and chemotherapy ( $p=0.032$ ,  $\chi^2=4.613$ ,  $ddl=1$ ). Severe cases were correlated with stage IV ( $p=0.041$ ,  $\chi^2=4.156$ ,  $ddl=1$ ), chemotherapy ( $p=0.004$ ,  $\chi^2=7.367$ ,  $ddl=1$ ) and intermediate or high risk ( $p=0.04$ ,  $\chi^2=3.754$ ,  $ddl=1$ ).

**Conclusions:** The prevalence of COVID-19 infection among cancer patients was higher than that described in the literature (0.79%) but with a lower rate of severe forms. The occurrence of COVID-19 was correlated with intermediate or high risk, age<70 years and treatment with chemotherapy which highlights the importance of risk scores.

**Legal entity responsible for the study:** Habib Bourguiba University Hospital committee.

**Funding:** Has not received any funding.

**Disclosure:** All authors have declared no conflicts of interest.

<https://doi.org/10.1016/j.annonc.2021.08.1577>

### 1585P COVID-19 cancer patients outcomes in an intensive care setting: A case-control study

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**Background:** Cancer patients appear to be a vulnerable group in COVID-19 pandemic. We aimed to compare clinical characteristics and outcomes of cancer and non-cancer patients with COVID-19 admitted to an intensive care unit (ICU).

**Methods:** We conducted a retrospective case-control study in patients with laboratory-confirmed COVID-19, with and without cancer, admitted to the ICU of "Centro Hospitalar Universitário do Porto" from 2<sup>nd</sup> March 2020 to 31<sup>st</sup> January 2021. Patients were matched according to age, gender and underlying comorbidities. Clinical, laboratory and radiological findings were obtained from medical records. COVID-19 related outcomes of both groups were compared using logistic regression.

**Results:** 29 critical COVID-19 cancer patients (cases) and 29 critical COVID-19 non-cancer patients (controls) were enrolled. Fever, dyspnea and cough were the most

common presenting symptoms in both groups. Lymphopenia and elevated lactate dehydrogenase were the most common laboratory findings in both groups and anemia was observed significantly more often in cancer patients (75.9% vs 44.8%;  $p=0.031$ ). Ground glass opacities were more frequently seen in controls (100% vs 67%;  $p=0.018$ ). Univariate regression revealed that invasive mechanical ventilation (IMV) need on ICU admission was significantly higher among cancer patients [48% vs 7%; odds ratio (OR)= 12.600, 95% confidence interval (CI) 2.517-63.063,  $p=0.002$ ] but there was no significant impact either on global need of IMV during all-length ICU stay (76% vs 55%; OR= 2.554, 95% CI 0.831-7.842,  $p=0.102$ ) or on mortality rates (59% vs 38%; OR= 2.318, 95% CI 0.809-6.644,  $p=0.118$ ). A multivariate model showed an increase in the adjusted risk of IMV need at ICU admission (adjusted OR= 14.036, 95% CI 1.337-153.111,  $p=0.028$ ). The length of ICU stay, time to death and rate of complications were not impacted by the presence of cancer.

**Conclusions:** In this study critical cancer patients with COVID-19 had an increased risk for IMV need at ICU admission but not for IMV need during all-length ICU stay or mortality rates. Despite evolving more rapidly to respiratory failure (RF) cancer patients did not have significant increase on mortality, stressing the importance of aggressive treatment in this group of patients.

**Legal entity responsible for the study:** The authors.

**Funding:** Has not received any funding.

**Disclosure:** All authors have declared no conflicts of interest.

<https://doi.org/10.1016/j.annonc.2021.08.1578>

### 1586P Assessment of side effects of radiation therapy in patients with COVID-19 treated for early-stage breast cancer

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**Background:** The COVID-19 caused by the SARS-COV-2 coronavirus is at the origin of a global pandemic. We report the early and late toxicity in patients infected with COVID-19 treated at the same time for early-stage breast cancer (BC) toxicity.

**Methods:** This is a monocentric prospective study of patients treated in our hospital between March and June 2020. The monocentric registry was created for all cancer patients who were diagnosed with COVID-19 infection. The inclusion criteria of the patients evaluated were to be irradiated for early-stage breast cancer and to have a positive COVID-19 diagnosis on a PCR test and / or a lung computed tomography (CT) scan and / or suggestive clinical symptoms. All of them needed 6 months follow up clinic after the end of the radiotherapy with clinical examination, as well as CT scan to evaluate the lung status. Radiotherapy (RT) consisted of 50 Gy to the breast or chest wall with or without lymph node irradiation, as well as hypofractionated schemes adapted to the pandemic situation. The treatment-related toxicity was graded according to the CTCAE.

**Results:** Three hundred fifty patients (pts) have been treated for early-stage BC in our department. Of them, 16 were presented with clinical symptoms of COVID-19 infection and of them 12 had clinical, CT scan and PCR confirmation. This entire cohort of 12 pts with median age of 56 (42-72) underwent their RT. All patients were invited to realize CT scan 6 months after the end of RT and to come in the hospital for clinical and radiological evaluation. During the radiotherapy, 9 pts presented with radio dermatitis, of these 8 (66%) grade 1 and one (8%) grade 2. Two patients treated to the regional lymph nodes presented grade 2 esophagitis. The late toxicity as well as the lung radiological evaluation was realized 6 months after the end of the radiotherapy and there was no RT or COVID lung sequel on the CT scans. There was one patient who presented COVID-related dyspnea, and 2 patients with post-treatment fibrosis.

**Conclusions:** The half-year follow-up of prospective COVID-19+ cohort, treated for early-stage BC demonstrated an acceptable toxicity profile with few low-grade adverse events. It seems that the COVID-19 infection does not appear to increase the side effects of RT. Therefore, the RT should not be delayed.

**Legal entity responsible for the study:** The authors.

**Funding:** Has not received any funding.

**Disclosure:** All authors have declared no conflicts of interest.

<https://doi.org/10.1016/j.annonc.2021.08.1579>