SARS-CoV-2 and cancer

The GCO-002 CACOVID-19 cohort: a French nationwide multicenter study of COVID-19 infected cancer patients and consequences on cancer management

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Background: The novel COVID-19 outbreak spread rapidly around the world. Cancer patients (pts) consist of a highly vulnerable group due to underlying malignancy and/or treatment-induced immunosuppression. A high mortality rate from COVID-19 in cancer pts was previously reported. France is the fourth most affected country, with more than 150,000 infected individuals and over 28,000 deaths. GCO-002 CACOVID-19 study is a large French nationwide cohort of COVID-19 pts with solid tumors with the aim to identify risk factors of COVID-19 severity and evaluate impact on cancer treatment.

Methods: Bispective multicenter cohort set up by the French Cooperative Groups in solid cancers: ANOCEF-IGCNO (CNS tumors), ARCAGY-GINECO (gynecological and breast cancers), FFCD (digestive cancers), GERCOR (digestive and other solid cancers), GORTEC/intergroupe ORL (head and neck cancers (H&N), and IFCT (thoracic cancers). French pts with solid cancers and COVID-19 diagnosed since 1 March 2020 were accrued. Exclusion criteria: pts treated curatively > 5 years ago.

Results: From 6 April to 15 May 2020, 835 pts from 136 institutions (general hospitals 35%, university hospitals 35%, private centers 25%, cancer centers 5%) were registered. Men: 61%, median age: 69 years (20-100). Digestive cancers: 43% (16%/9% colorectal/pancreatic cancers), lung cancers: 22%, gynecological: 14%, (9% breast cancers), H&N: 10%, CNS: 4%, urologic cancers: 3%. Advanced or metastatic: 61%. Within 3 months before COVID-19 diagnosis, 69% of pts received a systemic anticancer treatment (chemotherapy, targeted or immune therapy) and 22% a local therapy (surgery, radiotherapy or local destruction). Diagnosis of COVID-19 was confirmed by RT-PCR, CT-scan or both in 91% or serology in 1.4%. COVID was treated in the same oncological center in 78%. During the follow-up period (mean 14 days), 208 (25%) pts died, including 173 (21%) COVID-19 related deaths.

Conclusions: This first nationwide study of cancer pts with COVID-19 from France reports a high mortality rate. Updated and detailed data on anti-cancer treatments, risk factors of severe and fatal COVID-19 and impact of COVID-19 on cancer management will be presented.