Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Conclusions: Gratifying advances in the treatment of paediatric cancers for the past three decades have resulted in a decrease in annual mortality. Though the clinico-pathological profile was more in line with western data, the outcomes were different in our centre possibly due to delay in presentation as well as poor adherence to treatment. The delay and fallouts were secondary to poor socioeconomic status and low literacy of majority of patients who present to our hospital (95%). As with other cancers it can be concluded that the outcomes would improve by increasing awareness for a prompt institutional care especially in developing countries.

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508P High prevalence of clonal hematopoiesis of indeterminate potential (CHIP) associated mutations in elderly patients with solid tumors

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Background: CHIP refers to the finding of one or more mutations affecting genes involved in hematological malignancies in patients (pts) without hematological disease per se. The main risk factor for developing CHIP is aging. An increased risk of developing CHIP has been recently identified in pts with solid tumors. Comprehensive data integrating the molecular and clinical characteristics of pts with solid tumors and CHIP remain limited.

Methods: This study aims to calibrate the prevalence of CHIP-related mutations (CHIPm) through liquid biopsy performed in pts aged from 70 years old onwards enrolled in a phase I study. We collected retrospectively data from medical records and molecular profile (Foundation One Liquid CDx Assay) reports performed from January to December 2021, before first study drug administration at the Drug Development Department at Gustave Roussy within the STING trial (NCT04932525). We selected the 4 following CHIPm; *DNMT3A*, *TET2*, *ASXL1* and *JAK2*, as these genes are not considered directly related to solid tumors. CHIP prevalence was assessed according to two allele frequency (VAF) thresholds (1% and 2%).

Results: 53 pts were included; 74% were male and median age was 74 years. All pts previously received treatment for solid tumors with a median of 3 prior lines. Most common tumor types were: gastrointestinal (40%), genitourinary (25%), thorax (12%), endocrine system (9%) and skin (7%). Overall, 36 of the 53 pts (68%) had at least 1 CHIPm. VAF at 1% and 2% for each mutation were: *DNMT3A* 40% and 38%, *TET2* 33% and 39%, *ASXL1* 20% and 22%, *JAK2*: 7% and 9%. 21 of the 53 pts (58%) had more than 1 CHIPm. Median progression free survival (PFS) from CHIPm pts compared to pts without CHIPm was 4.1 months (m) versus (vs) 3.1m (p=0.1669), respectively; PFS in CHIPm-pts with VAF 1% vs no-CHIPm pts were 5.9 and 2.6m (p=0.1130); PFS in pts with CHIPm with VAF 2% vs no-CHIPm pts were 4.1 and 3.9m (p=0.6041). Overall survival (OS) for pts with CHIPm vs no-CHIP was 5.5 and 6.6m, respectively (p=0.9290); CHIP VAF 1%: NR; CHIP VAF 2%: 5 m.

Conclusions: CHIP are commonly found in elderly pts with a solid tumor, with a prevalence in our cohort of 68%. No patient developed a characterized hematological disease and no differences in outcomes were identified.

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509P COVID-19 disease among lung cancer (LC) patients: Data from a real-life prospective multicentric study

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Background: KBP-2020-CPHG is a prospective cohort study that included all consecutive patients diagnosed with lung cancer (LC) admitted in 2020, in nonacademic public hospital pulmonology or oncology units. This study provides a unique opportunity to prospectively study the incidence rate of COVID and associated factors in LC patients.

Methods: All new LC diagnosed between 01/01 and 12/31/2020 in non-academic public hospital pulmonology or oncology units were included. Data on COVID diagnosis (PCR test, serology, CT-scan) were collected. Only COVID diagnosed in 2020 after LC diagnosis were considered in this analysis. Incidence rate ratios were measured in different subgroups of patients (multivariate Poisson regression including age, sex, smoking status, histological type, PS, tumour grade and chemotherapy before COVID) and a survival analysis was performed (Cox regression with COVID as a time-dependent covariate).

Results: A total of 8,999 patients were included by 82 centers. Data on COVID were completed for 8,474: 308 patients had COVID after LC diagnosis, in 2020. COVID incidence measured by number of case / 100py from LC diagnosis was 7.5 [6.6-8.5]. Incidence rate ratio (IRR) was statistically larger in patients with small cell LC (IRR 2.01 [1.37:2.91] P<0.001) or with squamous LC (IRR 1.42 [1.03:1.94] P=0.028) (Table). PS 2 or 3, and stage III or IV, and the absence of chemotherapy were associated with

increased incidence. Age and smoking status had no significant effect on IRR. COVID was significantly associated with shorter survival time (HR 3,24; [2.69:3.90] P<0.001).

Table: 509P

	Incidence rate per 100 patients-years (95% CI)	Multivariate		
		IRR[1]	95% CI[1]	p-value
Gender				
F	6.2 (4.9 ; 7.7)	—	—	
M	8.3 (5.0 ; 13.6)	1.30	0.99, 1.74	0.068
Histology				
Adenocarcinoma & others	6.3 (5.3 ; 7.4)	—	—	
Small cells	11.4 (6.8 ; 18.6)	2.01	1.37, 2.91	<0.001
Squamous LC	9.2 (5.8 ; 14.4)	1.42	1.03, 1.94	0.028
Stage at diagnosis				
I	4.2 (2.4 ; 6.5)	—	—	
II	5.3 (1.6 ; 16.3)	1.41	0.73, 2.77	0.3
III	7.6 (2.6 ; 21.5)	2.20	1.24, 4.10	0.009
IV	8.6 (3.1 ; 23,5)	2.18	1.29, 3.94	0.006
Chemotherapy before COVID				
Yes	6.4 (5.4 ; 7.6)	—	—	
No	9.5 (6.2 ; 14.3)	2.04	1.51, 2.76	<0.001

[1]IRR = Incidence Rate Ratio, CI = Confidence Interval.

Conclusions: COVID incidence in lung cancer was associated with histology type, stage and PS. COVID is a strong risk factor of mortality.

Legal entity responsible for the study: French College of General Hospital Pulmonologists (CPHG).

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510P Long-term outcomes of COVID-19 infection in patients with solid tumors before vaccination

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Background: During the pandemic, there have been significant developments in the implementation of preventive measures, including follow up of COVID-19 infection and contact, increased testing capacity, and vaccination. On the other hand, the fluctuating course continues due to the COVID-19 variants. Cancer patients are among the groups most affected by the pandemic. In this study, it was aimed to investigate the long-term effects of COVID-19 infection in cancer patients before vaccination.

Methods: All patients who were followed up with a diagnosis of solid cancer and had SARS-CoV-2 infection (positive nasopharyngeal swab) between May 2020 and December 2020 (pre-vaccine period) were included in the study.

Results: 742 solid tumor patients were included in the study. Fifty-one point one percent of the patients were male. The median age was 61 (18-94) years and the median follow-up time from cancer diagnosis was 23 months (1-331). Distribution of the most frequent diagnoses by cancer subtypes; 25.7% were lung cancer, 24.9% gastrointestinal system cancer and 19.4% breast cancer. Fifteen point nine percent of the patients had one comorbidity and 13.9% had at least 2 comorbidities. In the last 3 months before COVID-19 infection, 51.6% of the patients were receiving anticancer treatment. The median follow-up period of the patients from the diagnosis of COVID-19 infection was 16 (1-24) months. During the follow-up, 35.7% of the patients died. On the other hand, 28.3% of the patients died from COVID-19 and its complications. When mortality due to COVID-19 infection was examined, it was seen that patients diagnosed with lung cancer (19.9%) were the most common cancer subgroups (19.9%) (p:0.01). When COVID-19-related mortality was examined, it was found that patients who received targeted therapy were more related with mortality (25.7%) (p:0.01).

Conclusions: Considering the mortality rates, it is clear that patients with solid tumors are more affected by the COVID-19 pandemic than the normal population. It is important to evaluate the effectiveness of preventive measures and planning future strategies. The pandemic is likely to have long-term consequences as well as short-term consequences.

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511P HIV impact in localized anal carcinoma: A matched cohort study

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Background: Despite a higher incidence of HPV-related cancer in HIV-positive (HIV+) patients (pts), pivotal studies with curative chemoradiation (CRT) in anal cancer do not include this population. The impact of HIV infection remains unknown in this scenario. This study aimed to compare overall survival (OS) according to HIV status.

Methods: In this retrospective matched cohort study, we reviewed electronic medical records in Sao Paulo State Cancer Institute between 2010 and 2021 and selected available patients (pts) with anal cancer T1-4 N0-1 M0 by AJCCVIII. For each HIV+ pts, we selected one or two HIV- cases matched by age, stage (T, N), and ECOG. The primary endpoint was OS; estimated using Kaplan-Meir and compared with the log-rank test.

Results: Our final sample was 122 patients, 45 being HIV+. We included 2 HIV-:1 HIV+ (n=96) plus 1 HIV-:1 HIV+ (n=26) match. The median follow-up was 37 months (m). The majority of patients n=119, 98%, received concomitant CRT with curative intent and had ECOG 0/1, n=116, 95%. Stage III was seen in n=85 pts, 69% with T4 (n=41, 33%) or T3 tumors (n=36, 29%). Positive nodes were detected in 76 pts, 62%. No difference was observed in complete response (CR) at 6 months post QT/RDT, which was 68% in HIV+ vs. 63% in HIV- (p=0.6). Median RFS was not reached; 3yRFS rates was 60.7% in HIV+ vs. HIV- (HR 1.20, 95% CI 0.66 - 2.17, p=0.538). Median OS was not reached; 3yOS was 66.4% HIV+ vs. 72.2% in HIV- (HR 1.23, 95% CI 0.61 - 2.47, p=0.546). HIV+ pts presented significantly more hospital admission due to toxicity 29% (n=12/41) than HIV- 13% (n=10/74) (p=0.04).

Conclusions: HIV+ pts with anal carcinoma treated with CRT presented similar CR, RFS, and OS outcomes compared with HIV- pts. Optimal therapy should be attempted in the HIV+ population. More hospital admission due to toxicity occurs in the HIV+ group.

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