Thoracic Cancers International COVID-19 Collaboration Registry (TERAVOLT) Results in a Tertiary Care Hospital in Portugal

Neoplasias Torácicas e COVID-19: Resultados do Estudo TERAVOLT na Unidade de Tumores Torácicos do Centro Hospitalar Vila Nova de Gaia / Espinho

Keywords: COVID-19; Lung Neoplasms; SARS-CoV-2
Palavras-chave: COVID-19; Neoplasias Torácicas; SARS-CoV-2

Patients with thoracic malignancies have been reported to be at higher risk of COVID-19 infection and may develop severe disease, with increased mortality.[1-4] The Thoracic Cancers International COVID-19 Collaboration Registry (TERAVOLT) is a global consortium that assesses outcomes in this group of patients.[2] The authors aim to describe the results of TERAVOLT in a Portuguese tertiary care hospital through a retrospective cohort study.

Patients diagnosed with COVID-19 at the Thoracic Tumors Multidisciplinary Unit of the Centro Hospitalar Vila Nova de Gaia/Espinho between the 2nd March 2020 and 8th January 2021 were included. Diagnosis was achieved through SARS-CoV-2 reverse transcription polymerase chain reaction (RT-PCR). Demographic, clinical, pathological and laboratory data were collected. The present population was studied before COVID-19 vaccines were implemented.

The study included 31 patients. From these, 71% were males (n = 22), with median age of 67 years old. Most had Eastern Cooperative Oncology Group performance status (ECOG PS) of 1 (71%; n = 22). Regarding smoking history, all women were non-smokers and most male patients were active smokers (13%; n = 4) or ex-smokers (48%; n = 15). As for histological type, 74.2% (n = 24) had non-small cell lung carcinoma: 19 adenocarcinomas, four squamous cell carcinomas and one large cell carcinoma. The remainder were two small cell lung carcinomas, two carcinoids, one mesothelioma and two cases of thymic hyperplasia. Disease stage was diverse regarding cancer patients (IV - 63%; III – 18.5%; II – 3.7%; I – 14.8%), and 77.4% (n = 24) presented at least one comorbidity, with hypertension being the most frequent. From the overall number of patients, 59.1% (n = 18) were not receiving any treatment: 10 were under surveillance after finishing radical treatment, while the others had not yet started. Twelve were under palliative systemic therapy and one patient was under chemo/radiation therapy. Most patients presented suggestive symptoms, whilst 29% were asymptomatic (Fig. 1). Thirteen patients were hospitalized (41.9%) although none was admitted to the intensive care unit (ICU). Pneumonia was the most frequent complication.

The mortality rate was 16.1% (n = 5). These patients were not eligible for ICU care.

Compared with the published results of TERAVOLT[1] and of a multicenter Spanish study,[2] there was a lower mortality rate in our population (16.1% *vs* 32% and 32.7% respectively). All deaths occurred in stage IV patients with ECOG PS 2-3, who were diagnosed with COVID-19 during hospitalization due to other reasons. Two of these patients had been recently diagnosed and had not yet started any therapy, while one was receiving supportive palliative care, and the remainder were receiving palliative chemotherapy.

The proportion of asymptomatic patients and lower mortality could be due to mandatory SARS-CoV-2 PCR screening tests performed before treatments and invasive procedures. Telephone visits, less frequent immunotherapy

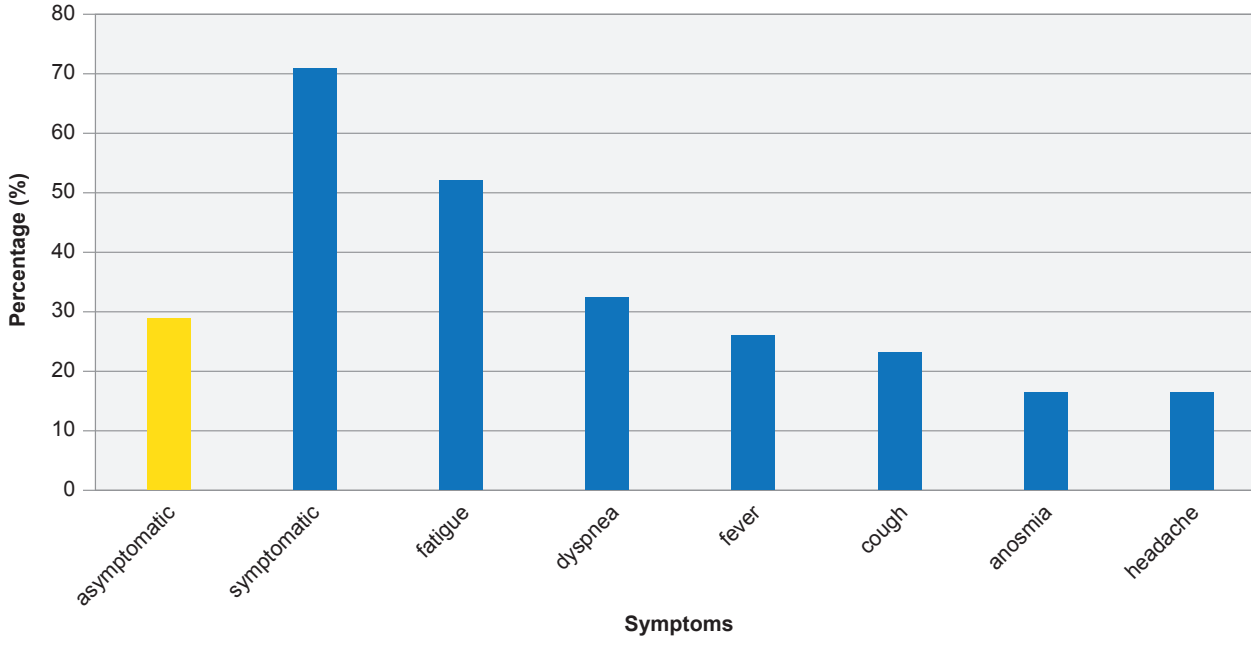

Figure 1 – COVID-19 related symptoms of patients at the Thoracic Tumors Multidisciplinary Unit of the Centro Hospitalar Vila Nova de Gaia/Espinho during the study period

dosing schedules and tyrosine kinase inhibitors administered for a two-month period were measures that were implemented to prevent unnecessary hospital visits. Guidelines on infection control measures and treatment options in this group of patients should be developed. Further outcomes should be considered in future studies.

AUTHORS CONTRIBUTION

RV: Data acquisition. Conception of the work.

ES, DC, MD: Data acquisition.

AB: Data acquisition. Critical review of the work.

COMPETING INTERESTS

DC: Received consulting fees from AstraZeneca, Roche and MSD. Received payment, honoraria for lectures, presentations, speaker bureaus, manuscript writing or educational events from AstraZeneca, Roche and MSD. Received payment for expert testimony from MSD. Participates on a Data Safety Monitoring Boars or Advisory Board from AstraZeneca, Roche and MSD. Owns stock or stock options from Teva.

MD: Received payment, honoraria for lectures, presentations, speaker bureaus, manuscript writing or educational events from Astra-Zeneca. Received support for attending meetings and/or travel from AstraZeneca and Bial.

AB: received payment or honoraria for lectures, presentations, speaker bureaus, manuscript writing or educational events from AstraZeneca, Roche, Novartis, BMS, MSD, Merck global and Pfizer (payment made to Oncoskin). Received support for attending meetings and/or travel from Roche, MSD, BMS, and AstraZeneca. Participates on a Data Safety Monitoring Board or Advisory Board for AstraZeneca, Roche, Novartis, BMS, MSD, Merck global, Pfizer and Janssen (payment made to Oncoskin). Has a leadership or fiduciary role in GECP (no payments).

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