

COVID-19 pandemic impact on lung cancer patients performance status and access to treatment

A comparative study pre and during COVID-19 era

Rute Fernandes ^{(1)*}; Marta Pina ^{(1)*}; Cátia Fava Gaspar ⁽¹⁾; Ana Raquel Teixeira ⁽¹⁾; Ana Rodrigues ⁽¹⁾; Cristina Oliveira ⁽¹⁾; Isabel Azevedo ⁽¹⁾

⁽¹⁾ Instituto Português de Oncologia do Porto Francisco Gentil, EPE; * No conflicts of interest to declare. E-mail: rute.j.fernandes@gmail.com, marta_pfernandes@hotmail.com.

INTRODUCTION

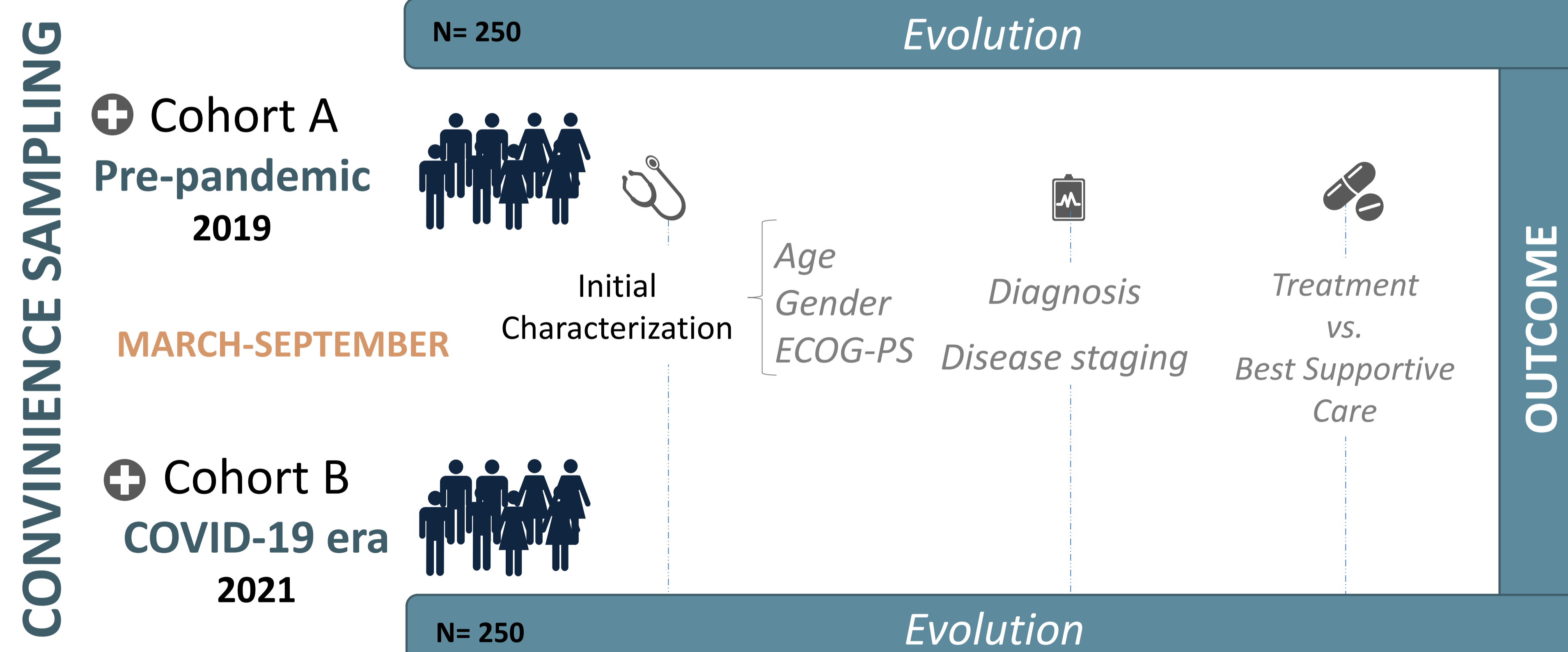
- COVID-19 represents a large health care consuming problem worldwide.
- The real impact of the pandemic among non-COVID patients is still undetermined.
- Cancer patients encountered profound changes in health care accessibility.
- Unknown impact in their diagnosis, access to treatment and outcomes.

METHODS

RETROSPECTIVE COHORT STUDY

1st Medical Oncology (MO) consult patients with lung cancer during an homologous time period

Pre-pandemic and during COVID -19 era



Interval between the beginning of symptoms and 1st medical evaluation & Imagiological suspicion and 1st MO consult

Overall survival
Access to treatment/ Early referral to best supportive care

RESULTS

VARIABLES	2019	2021	p value	
AGE	Years			
	65,6 ±10,5	66,8 ±9,6	0,2	
SEX	Male	189 76%	182 73%	0,46
	Female	61 24%	68 27%	
HISTOPATHOLOGY	Non Small Cell Lung Cancer (N=239)	209 87,4%	222 90,2%	0,33
	Small Cell Lung Cancer	30 12,6%	24 9,8%	
STAGING	I	37 14,8%	20 8,0%	0,037
	II	11 4,4%	23 9,2%	
	III	32 12,8%	39 15,6%	
	IV	165 66,0%	162 64,8%	
	ND	5 2,0%	6 2,4%	
ECOG -PS	≤2	224 89,6%	218 87,2%	0,40
	≥3	26 10,4%	32 12,8%	
TIME SINCE THE BEGINNING OF SYMPTOMS UNTIL 1ST MEDICAL EVALUATION (MONTHS)	3,4 (N=142) ±2,4	4,4 (N=122) ±3,5	0,009	
TIME SINCE IMAGIOLOGICAL SUSPICION AND 1ST ONCOLOGY CONSULT (DAYS)	33,2 (N=190) ±23,6	33,3 (N=201) ±26,8	0,98	
SURGERY	Yes	50 20%	50 20%	0,54
	Palliative	39 15,6%	35 14,0%	0,79
RT	Radical	39 15,6%	36 14,4%	
	No RT	172 68,8%	179 71,6%	
EARLY REFERRAL TO BEST SUPPORTIVE CARE (BSC)		47 18,8%	54 21,6%	0,44
SYSTEMIC TREATMENT	Adjuvant Cht	9 3,6%	16 6,4%	0,74
	Cht + RT	21 8,4%	22 8,8%	
	Neoadjuvant Cht	4 1,6%	5 2,0%	
	Palliative systemic treatment	117 46,8%	118 47,2%	
	No anti-neoplastic treatment	60 24%	56 22,4%	
OVERALL SURVIVAL	Months	15,4 ±8,85	ND ND	NA

RT – Radiotherapy; SBRT – Stereotactic body radiation therapy; Cht – Chemotherapy;

TKI – Tyrosine Kinase Inhibition; NA – not applicable; ND – not determined

DISCUSSION

- We found no significant differences in age, gender distribution, histopathology and treatments.
- Patients were diagnosed with **more advanced staging during COVID-19 pandemic**, which was statistically significant, with more stage II and III and less patients stage I. The results for Stage IV and patients not able to be studied are similar.
- There was a statistically significant **delay between the symptoms onset and the first consult during COVID-19 pandemic period**.
- We found a tendency towards frailty, as there was an increased number of patients presenting ECOG-PS ≥3, despite not statistically significant, concordant with the earlier BSC referral in 2021.
- The timing since the patient referral to our cancer centre and the 1st oncology consultation is not different before and after the pandemic.
- Immature OS data in 2021 - more follow up time is needed to correctly understand the COVID 19's impact.

CONCLUSIONS

- The true pandemic impact in non-COVID-19 patients, particularly in lung cancer population, is still unknown.
- A problem that health care systems will need to address in coming years as a concerted effort involving increased investment in the detection and treatment of cancer patients, in order to gradually recover pre-COVID-19 health levels.