


Impact of COVID-19 on colorectal cancer presentation

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Dear Editor

It is 8 months since the WHO declared the coronavirus disease (COVID-19) pandemic. The pandemic is not over, but it is believed that it will influence oncological outcomes as a consequence of delayed presentation, and difficulty in providing diagnostic investigation and treatment when hospitals are overburdened with caring for patients with COVID-19¹. Accurate data on the survival impact will not be available for many years, but measuring the effect of the pandemic on services now may help predict likely outcomes^{2–4}.

This observational cross-sectional comparative analysis compared new cases of colorectal and anal cancer in the outpatient clinics of the Colorectal Surgery Service of AC Camargo Cancer Centre, Sao Paulo, Brazil, during the interval 1 March to 31 July 2020 and the same period in 2019.

There was a significant decrease in newly diagnosed patients referred, a significant increase in locally advanced disease at presentation, and increase in the proportion of patients without insurance for coverage of costs (Table 1). In 2019, 108 patients with newly diagnosed colorectal cancer were admitted, compared with 58 in the same period in 2020, comprising a decrease of 46.3 per cent. As the hospital has not stopped new appointments for patients with confirmed cancer⁵, the decrease may be explained by the difficulty in performing colonoscopy and by the patients' fear of undergoing in-hospital investigation while the pandemic is ongoing. Another reason for the decrease in new cancer diagnoses is the collapse of health systems, especially those that are publicly funded. This effect can be demonstrated indirectly by the decrease in referral of patients from the public health system (Sistema Único da Saúde) to this hospital, from 21.0 per cent in 2019 to 14 per cent in 2020.

Another worrying finding is the increase in the proportion of patients without any coverage (from 12.4 to 22 per cent). This subset of patients reflects loss of insurance coverage, owing to a decrease in household income, and barriers to accessing the overcrowded but universal Brazilian public system. These patients often search for private hospitals to gain access to diagnosis and treatment, but eventually go back to the already congested public healthcare system, as they cannot afford fully private treatment. This effect can be implied from the increase in the proportion of private patients who made one or two appointments and did not continue treatment at the authors' centre (from 18.5 to 28 per cent). These data indirectly show the migration of people from intermediate to low income levels, owing to the pandemic. As a consequence of all of these barriers, there has been a worsening of clinical stage at presentation, especially for locally advanced tumours. Late diagnosis and eventually poor cancer outcomes during the pandemic must be recognized and addressed by healthcare policy providers. We are now facing a second wave of the pandemic, and continuous efforts have to be made by private and public health systems around the world to provide timely and effective cancer care to all patients with cancer.

Disclosure. The authors declare no conflict of interest.

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2. Sharpless NE. COVID-19 and cancer. *Science* 2020;368:1290

Table 1 Clinical and socioeconomic variables in 166 patients with newly diagnosed colorectal and anal cancers, comparing March to July 2019 with March to July 2020

	2019 (n = 108)	2020 (n = 58)	P*
Mean age (years)	62.9	61.8	0.591 [†]
Sex ratio (M : F)	46 : 62	30 : 28	0.163
Area of residence			0.219
State of Sao Paulo countryside or other state	19 (19)	14 (26)	
City of Sao Paulo metropolitan area	80 (81)	40 (74)	
Reason for diagnosis			0.122
Screening	28 (26.7)	10 (17)	
Symptomatic	77 (73.3)	48 (83)	
Mean duration of symptoms (days)	123.9	135.5	0.618 [†]
Tumour location			0.159
Colon	64 (59.3)	29 (50)	
Anorectum	44 (40.7)	29 (50)	
Clinical tumour category			0.19
cT1–T3	89 (84.8)	44 (76)	
cT4	16 (15.2)	14 (24)	
Clinical node category			0.002
cN0	73 (69.5)	26 (45)	
cN+	32 (30.5)	32 (55)	
Clinical metastasis category			0.483
cM0	96 (91.4)	54 (93)	
cM+	9 (8.6)	4 (7)	
Clinical stage at presentation			0.002
Not advanced (cT1–T3 N0 M0)	65 (61.3)	21 (36)	
Advanced (cT4 or cN+ or M1)	41 (38.7)	37 (64)	
Type of cost coverage			0.182
Public Health (SUS)	22 (21.0)	8 (14)	
Insurance companies	70 (66.7)	37 (64)	
Fully private	13 (12.4)	13 (22)	
Insurance			0.068
Any kind of insurance (public or private company)	92 (87.6)	45 (78)	
No insurance (fully private)	13 (12.4)	13 (22)	
Continuity of treatment at ACCC			0.124
Yes	88 (81.5)	42 (72)	
No	20 (18.5)	16 (28)	

Values in parentheses are percentages. There were data missing for some variables. SUS, Sistema Único da Saúde; ACCC, AC Camargo Cancer Centre. *chi-squared test was used for categorical variables, except [†]student T test was used to compare continuous variables.

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