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The impact of the covid-19 pandemic restrictive measures on the diagnosis of adenomatous polyps and colorectal adenocarcinoma in a population submitted to colonoscopy

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HIGHLIGHTS

- The impact of the COVID-19 pandemic on the diagnosis of adenomatous polyps and colorectal cancer.
- A cross-sectional study evaluating COL performed during the periods from 20 March to 31 October of 2019 and of 2020, which analyzed 10,232 colonoscopies.
- There was a 51,0% reduction in the number of COL performed in 2020 when compared to 2019. Of the altered exams, adenomatous polyps were diagnosed in 68.8% in 2019 and 78.3% in 2020. CRC was diagnosed in 0.9% in 2019 and 1.6% in 2020.
- The increase in adenomatous polyps and colorectal cancer diagnoses was observed, it was not enough to compensate for the reduction in the number of exams.

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ABSTRACT – Background – Colorectal cancer (CRC) is globally the third most common malignant neoplasm and the second leading cause of cancer-related death worldwide. The COVID-19 pandemic led to the suspension of routine screening tests by health services. A 35.5% drop in total cancer diagnoses in 2020 is estimated when compared to 2019. **Objective** – To evaluate the impact of the COVID-19 pandemic on the diagnosis of adenomatous polyps (AP) and CRC in a population undergoing colonoscopy (COL) in a clinic in Goiânia, Brazil. **Methods** – A cross-sectional study evaluating COL performed during the periods from 20 March to 31 October of 2019 and of 2020, was approved by the Research Ethics Committee (CAAE-45631421.0.0000.0037). We analyzed data related to identification, referral for medical examination, colonoscopic and histopathological findings. **Results** – We evaluated 10,232 (93.4%) COL, divided into two groups according to the year of performance. In 2019, 6,777 (66.2%) COL were performed and in 2020, 3,455 (33.8%), demonstrating a reduction of 51.0%. A total of 3,267 (31.9%) colonoscopies found polyps, 72.1% of which were AP (68.8% in 2019 and 78.3% in 2020, $P<0.001$). High-grade dysplasia was found in 5.0% of the AP (4.9% in 2019 and 5.8% in 2020, $P<0.34$). CRC was diagnosed in 121 (1.2%) (0.9% in 2019 and 1.6% in 2020, $P<0.001$). **Conclusion** – The COVID-19 pandemic significantly reduced COL in 2020, mainly due to infection fears and restrictions. However, the detection rate of cancer and polyps per procedure increased, indicating more symptomatic patients sought medical attention. Despite this, the absolute number of tumors and adenomas found decreased, potentially causing diagnostic losses and fewer prevented colorectal cancer cases. Thus, adaptive strategies are vital for maintaining essential healthcare services during similar crises.

Keywords – Colorectal cancer; COVID-19; screening.

INTRODUCTION

Colorectal cancer (CRC) corresponds to the third most common malignancy worldwide, with approximately two million new cases per year, and the second leading cause of cancer-related death in the world, with lung cancer being the first^(1,2). In Brazil, according to the National Cancer Institute (INCA), it is expected that, for each year of the three-year period 2020–2022, 20,520 and 20,470 diagnoses of CRC will be registered in males and females, respectively. These values represent an estimated risk of 19.64 new cases per 100,000 men and 19.03 per 100,000 women⁽³⁾.

The incidence of CRC is known to be higher in people of African descent and increases with age and is typically diagnosed from the fifth decade of life onwards^(4,5). In addition, in all age groups, men have a 1.5 times greater risk of having the disease than women⁽⁵⁾.

CRC corresponds to approximately 10.0% of all cancer diagnoses and deaths. In its early stages, it is asymptomatic or oligosymptomatic, with nonspecific symptoms, such as changes in bowel habits, weight loss, abdominal pain and digestive hemorrhage^(6,2). Owing to these facts, the Ministry of Health (MH) recommends screening for the disease in people between 50 and 75 years of age without risk factors, through fecal occult blood testing (FOBT), which, if positive, should be complemented with colonoscopy (COL) or sigmoidoscopy⁽⁷⁾.

Colorectal polyps can be histologically classified according to their neoplastic potential: when hyperplastic, hamartomatous or inflammatory (pseudo-polyps), they do not have a tendency to become malignant. The opposite is observed for adenomatous and serrated polyps⁽⁸⁾. Adenomas, in turn, can be subdivided according to the participation of the tubular and villous components in their constitution, as well as their degree of dysplasia, which can be low or high, the latter having a greater chance of evolving into CRC^(9,10). Nearly all cases of CRC originate from adenomatous polyps⁽¹¹⁾. COL is considered the gold standard exam for detection and excision (polypectomy) of these lesions⁽¹¹⁾.

The first case of the disease caused by the SARS-CoV-2 Coronavirus (COVID-19) was first reported in November 2019 and classified as a pandemic in

March 2020^(12,13). COVID-19 has high transmissibility, in which airborne spread through droplets and aerosols, and contact with contaminated people and fomites are the most relevant routes of contagion^(14,15). Thus, endoscopic examinations of the digestive system, which require a short physical distance between the patient and the professionals who perform them and promote exposure to potentially infectious biological samples, are considered high-risk procedures for viral contamination^(16,17). Furthermore, the presence of SARS-CoV-2 has already been demonstrated in tissues such as the esophagus, stomach, duodenum and rectum of infected people⁽¹⁸⁾.

Faced with the fear of the imminent collapse of health systems, as a result of the high population demand for hospital equipment and human resources, the state of Goiás issued State Decree No. 9638, which declared a public health emergency and established the quarantine regime⁽¹⁹⁾. Following that, State Decree No. 9638 suspended all elective outpatient exams and procedures, with a few exceptions⁽²⁰⁾.

Added to this scenario was the fear of exposure to the coronavirus in health units, causing the population to undergo increasingly fewer routine screening investigations^(21,22). Due to this, it is estimated that about 15,000 new cases of cancer were not detected each month in Brazil during the year 2020, representing a drop of 35.5% compared to 2019⁽²³⁾. With regard to CRC, it is estimated that around 263.8 thousand COL and 732 thousand FOBT failed to be performed⁽²⁴⁾.

Survival of patients with CRC is closely related to the early screening of the disease: after 5 years from the diagnosis, more than 90.0% of patients with stage I tumors are alive, while this rate is only 10.0% for stage IV adenocarcinomas⁽²⁵⁾.

Thus, in view of the high incidence of CRC, as well as its nonspecific symptoms and the possibility of being diagnosed early through COL to reduce morbidity and mortality, the current study aimed to assess the impact of the restriction measures brought into force in the context of the COVID-19 pandemic in the diagnosis of adenomatous polyps and CRC.

METHODS

This is a cross-sectional study that evaluated the

colonoscopic findings of patients at a private clinic in the city of Goiânia, Goiás. The analysis began by adopting March 20, 2020, the date of the suspension of COL in the state of Goiás (March 20, 2020) (Goiás, 2020b), as a reference point. The exams were conducted between 20 March and 31 October, 2019, and between 20 March and 31 October, 2020. Data were collected from medical records including patient identification (name, gender, and age), colonoscopic findings, biopsy and/or polypectomy procedures, and corresponding histopathological findings.

All patients aged 18 years or older who underwent COL during the specified period were included. Examinations (COL an/or histopathology) lacking sufficient technical quality for diagnostic conclusions and patients with medical records that did not allow necessary data collection were excluded.

Variables were stratified and compared based on the year of COL performance (2019 vs 2020). Statistical calculations were performed using IBM® SPSS® software (Statistical Package for the Social Sciences), with a significance level of 5.0% ($P<0.05$). The study was approved by the Research Ethics Committee of the Pontifical Catholic University of Goiás.

RESULTS

719 (6.6%) out of the 10,951 exams performed during the study period were excluded. Our sample consisted of 10,232 (93.4%) individuals, divided into two groups, according to the year of COL performance. Group 1 consisted of 6,777 (66.2%) procedures performed in 2019 and group 2 consisted of 3,455 (33.8%) in 2020. Therefore, there was a 51.0% reduction in the total COL performed during the pandemic period. When the analysis is stratified by month, it is observed that there was a global decrease ($P<0.001$), with emphasis on the months of March and April, in which the percentages of reduction were 96.0% and 83.0%, respectively (TABLE 1).

As for patient gender, the majority were females (63.4%), corresponding to 64.7% of the sample in 2019 and 60.8% in 2020. Regarding the age group, it was noticed that 61.6% were aged 50 or over, and in 2019 this proportion was 63.8%, with a mean age of 53.5 ± 14.0 years. In 2020, 57.2% of patients were within this range, with an average of 51.3 ± 13.8 years ($P<0.0001$). Comparing the two analyzed periods, it can be seen that people who underwent COL in the pandemic year were significantly younger than those in the previous year (TABLE 2). It is also possible to

TABLE 1. Monthly colonoscopies per year analyzed (2019 and 2020).

Variable (n=10,232)	Year 2019 n=6,777 (66.2%)	Year 2020 n=3,455 (33.8%)	Monthly decrease (%)	P-value*
March	380 (5.6%)	16 (0.5%)	96	<0.001
April	911 (13.4%)	155 (4.5%)	83	
May	887 (13.1%)	382 (11.0%)	57	
June	798 (11.8%)	512 (14.8%)	36	
July	1,039 (15.3%)	494 (14.3%)	52	
August	906 (13.4%)	539 (15.6%)	40.5	
September	853 (12.6%)	677 (19.6%)	21	
October	1,003 (14.8%)	680 (19.7%)	32	

*Chi-square test.

TABLE 2. Demographic characteristics of the sample groups per year analyzed (2019 and 2020).

Variable (n=10,232)	Year 2019 n=6,777 (66.2%)	Year 2020 n=3,455 (33.8%)	P-value*
Gender n (%)			0.0001
Female	4,385 (64.7%)	2,101 (60.8%)	
Male	2,392 (35.3%)	1,354 (39.2%)	
Age n (%)			<0.0001
Until 39	1,186 (17.5%)	746 (21.6%)	
From 40 to 49	1,266 (18.7%)	734 (21.2%)	
50 or over	4,325 (63.8%)	1,975 (57.2%)	
Average (SD)	53.5 (14.0)	51.3 (13.8)	<0.0001**

*Chi-square test; **Mann-Whitney test.

observe that the greatest percentage drop in exams performed in 2020, compared to 2019, occurred in the age group aged 50 years or older, representing a deficit of 54.3% (FIGURE 1).

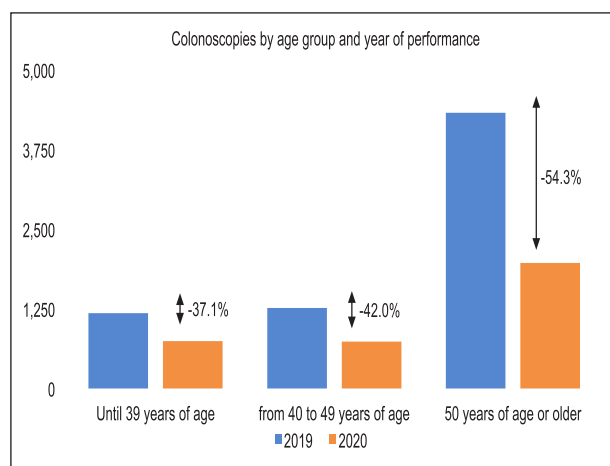


FIGURE 1. Colonoscopies by age group and year of performance.

31.9% out of the 10,232 COL studied had at least one finding corresponding to a polyp (which can be either adenomatous or hyperplastic/inflammatory). When comparing the year 2019 (31.7%) with 2020 (32.3%), there was no statistically significant percentage difference ($P=0.5646$). The majority of the 3,267 polyps visualized were adenomatous (72.0%), this

proportion was 78.3% and 68.8% in 2019 and 2020, respectively. This shows that, even with the absolute decrease in the number of exams performed during the lockdown period, adenomas represented a higher percentage of the total number of polyps found in 2020 than in 2019 ($P<0.0001$).

95.0% of the analyzed AP presented low-grade dysplasia and 5.0% high-grade dysplasia during the two years of the study. In 2019, the percentages of non-advanced and AP polyps were, respectively, 95.1% and 4.9%. Meanwhile, in 2020, these same proportions were 94.2% and 5.8%. However, the difference between the degrees of dysplasia was not statistically significant ($P=0.34$) (TABLE 3).

Furthermore, histological findings were obtained that confirmed the presence of tumor (CRC) in 1.2% (121) of the COL during the two analyzed periods. Of these tumors, 57 were found in 2020, representing 1.6% of the total number of exams in the same year. In 2019, 64 tumors were identified, which is equivalent to 0.9% of the COL performed in that year. From these data, it was noticed that the detection rate of adenocarcinomas by COL, during the pandemic, suffered a statistically significant increase ($P=0.0018$) (TABLE 3). Regarding gender, it is noticeable that most of the patients, in whom CRC was observed, are male (57.8%

TABLE 3. Colonoscopic findings in the years analyzed (2019 and 2020).

Variable (n=10,232)	Year 2019 n=6,777 (66.2%)	Year 2020 n=3,455 (33.8%)	P-value*
Lesion (adenomas e CRC) n (%)			
Yes	1,407 (21.1%)	908 (26.3%)	<0.0001
No	5,263 (78.9%)	2,547 (73.7%)	
Polyp n (%)			
Yes	2,151 (31.7%)	1,116 (32.3%)	0.5646
No	4,626 (68.3%)	2,339 (67.7%)	
Histological type n (%)*			
Adenomatous	1,480 (68.8%)	874 (78.3%)	<0.0001
Hyperplastic or inflammatory	671 (31.2%)	242 (21.7%)	
Degree of dysplasia n (%)*			
High-grade	73 (4.9%)	51 (5.8%)	0.3435
Low-grade	1,407 (95.1%)	823 (94.2%)	
Tumor (CRC) n (%)			
Yes	64 (0.9%)	57 (1.6%)	0.0018
No	6,713 (99.1%)	3,398 (98.4%)	
Gender (CRC) n (%)			
Female	27 (42.2%)	23 (40.4%)	0.8383
Male	37 (57.8%)	34 (59.6%)	

*Chi-square test.

in 2019 and 59.6% in 2020); however, no statistical significance between 2019 and 2020 was found.

When evaluating the number of COL in which lesions (AP and/or tumor) were found, it can be seen that, during the lockdown period, there was a higher percentage of detection than when compared to the previous year (26.3% vs 21.1%) ($P<0.001$).

As for the referrals for performing COL, it was observed that the main five were: cancer prevention [4,663 (45.6%)], abdominal pain [1,297 (12.7%)], history of colonic polyps [943 (9.2%)], presence of gastrointestinal bleeding (melena, intestinal bleeding or hematochezia) [787 (7.7%)] and chronic diarrhea [466 (4.6%)]. When the referrals were evaluated according to the year of performance, it was noticed that cancer prevention [3,264 (48.2%) vs 1,399 (40.5%), $P=0.000000001$] and hemorrhoidal disease [86 (1.3%) vs 17 (0.5%), $P=0.0002$] were significantly more com-

mon in 2019. In 2020, the main referrals were abdominal pain [804 (11.9%) vs 493 (14, 3%), $P=0.00005$], gastrointestinal bleeding [420 (6.2%) vs 367 (10.6%), $P=0.000000001$] and change in bowel habits [244 (3.6%) vs 189 (5.5%), $P=0.000008$] (TABLE 4).

DISCUSSION

This work aimed to evaluate the impact of the restrictive measures brought in force during the COVID-19 pandemic on the diagnosis of adenomas and CRC in a private clinic in the city of Goiânia. In 2020, there was a significant percentage reduction in the number of COL performed and in the average age of patients undergoing the exam. There was also a relevant increase in the detection of cancer and lesions (AP and CRC) per procedure performed in the year of the pandemic.

TABLE 4. Referrals for colonoscopy performed in the analyzed years (2019 and 2020).

Referral	Year 2019 n=6,777 (66.2%)	Year 2020 n=3,455 (33.8%)	P-value*
Prevention or screening	3,264 (48.2%)	1,399 (40.5%)	0.000000001
Abdominal pain	804 (11.9%)	493 (14.3%)	0.0005
History of polyp	625 (9.2%)	318 (9.2%)	0.9
Gastrointestinal bleeding	420 (6.2%)	367 (10.6%)	0.000000001
Chronic diarrhea	313 (4.6%)	153 (4.4%)	0.6
Change in bowel habits	244 (3.6%)	189 (5.5%)	0,000008
Presence/History of neoplasia	183 (2.7%)	72 (2.1%)	0.06
Family history of neoplasia	168 (2.5%)	83 (2.4%)	0.8
Constipation	114 (1.7%)	48 (1.4%)	0.2
Anemia	89 (1.3%)	52 (1.5%)	0.4
Inflammatory bowel disease	91 (1.3%)	46 (1.3%)	0.9
Positive occult blood	90 (1.3%)	41 (1.2%)	0.5
Anal affections	76 (1.1%)	41 (1.2%)	0.7
Hemorrhoidal disease	86 (1.3%)	17 (0.5%)	0.0002
Postoperative control	43 (0.6%)	38 (1.1%)	0.01
History of diverticula	59 (0.9%)	19 (0.5%)	0.08
Weight loss	36 (0.5%)	25 (0.7%)	0.2
Endometriosis	29 (0.4%)	21 (0.6%)	0.2
Preoperative	17 (0.3%)	15 (0.4%)	0.1
Others	17 (0.3%)	8 (0.2%)	0.8

*Chi-square test.

There was an evident 51.0% ($P<0.001$) reduction in the total COL performed in 2020, compared to 2019, with more significant monthly deficits in March and April. These findings corroborate other studies, which recorded significant declines in the number of procedures performed between March and May of the pandemic year^(26,27).

Most patients were 50 years old or older (63.8% in 2019 vs 57.2% in 2020), which is in line with the MH guidelines for starting CRC screening⁽⁷⁾. In addition, a reduction was noticed in the average age in 2020 when compared to the previous year (53.5±14.0 years in 2019 vs 51.3±13.8 years in 2020, with $P<0.0001$), as well as a greater percentage decrease in the number of exams in those aged at least 50 years (-54.3%). This can be explained by the fact that the elderly correspond to a risk group for COVID-19⁽²⁸⁾. Thus, the fear of being infected probably impacted the decision of whether or not to perform the test during the quarantine period. In light of this, it is paramount to underscore that the incidence of colorectal cancer escalates with advancing age⁽⁷⁾. Consequently, the decrease in the average age and the reduction in the number of individuals aged over 50 undergoing the examination lead to a significant diminishment in the diagnosis of colorectal cancer and its precursors.

Women accounted for the majority of the sample in both years analyzed (64.7% in 2019 vs 60.8% in 2020). It is observed that, even with a higher risk of developing CRC, the proportion of males undergoing COL is lower than that of females, which can be explained by the routine gynecological examinations, which include performing FOBT for CRC screening in all patients over 50 years of age⁽²⁹⁾. In turn, despite representing the minority of the studied population (35.3% in 2019 vs 39.2% in 2020), men were proportionally subjected to more tests during the pandemic than in 2019 ($P=0.0001$). Furthermore, it is interesting to note that, among the patients who received CRC diagnoses, 58.7% were male, a finding compatible with the INCA data and other studies^(3,5).

With regard to the detection of polyploid lesions, there was no statistical significance in the comparison between the years 2019 and 2020, which shows that, proportionally, a similar number of findings corresponding to polyps was found in the two periods investigated. These same results were described

in the studies by Hinterberger et al. (2021)⁽³⁰⁾ and Holland et al. (2022)⁽²⁶⁾. However, after analyzing the biopsies, there was an increase in the proportion of adenomas found in 2020 (78.3%) when compared to 2019 (68.8%) ($P<0.0001$). On the other hand, other studies did not find a statistically significant difference in the detection of adenomatous polyps^(26,31). Regarding the degree of dysplasia, during the pandemic, the percentages of adenomas with low-grade and high-grade dysplasia were respectively 94.2% and 5.8%, and, in the previous year, 95.1% and 4.9% ($P=0.3435$). Despite this, there was an absolute decrease of 584 non-advanced adenomas and 22 advanced adenomas in 2020.

Our work showed an increase in the cancer detection rate per procedure (0.9% in 2019 vs 1.6% in 2020, with $P=0.0018$), as well as a higher percentage of lesion screening (CRC and adenomatous polyps) (21.1% in 2019 vs 26.3% in 2020, with $P<0.0001$). These data are consistent with other studies^(26,27,31). However, as fewer COL and, therefore, polypectomies were performed in 2020, lower absolute numbers of tumors and adenomas were found. Therefore, significant diagnostic losses are believed to have occurred, which has already been reported in the literature^(26,27,30).

It is estimated that 4.0% of all non-advanced adenomatous polyps can become advanced adenomas and 3.1% of these can progress to CRC⁽⁹⁾. Considering the year 2019, during which 73 advanced adenomatous polyps and 1,407 non-advanced adenomatous polyps were recorded, if these polyps had not been removed, four of them could have progressed to CRC. The same calculation, when applied in 2020, is equivalent to three cases. This demonstrates that, even with a higher proportion of adenoma diagnoses in 2020, there was an absolute decrease in the amount of prevented CRC.

When the reasons for performing COL were evaluated, it was observed that the main reason was cancer prevention [4,663 (45.6%)] in both years. However, according to the year of the procedure, it was noticed that this indication was statistically more significant in 2019 [3,264 (48.2%) vs 1,399 (40.5%), $P=0.000000001$]. In 2020, abdominal pain [804 (11.9%) vs 493 (14.3%), $P=0.00005$], gastrointestinal bleeding [420 (6.2%) vs 367 (10.6%), $P=0.000000001$] and changes in bowel habits [244 (3.6%) vs 189

(5.5%), $P=0.000008$] stood out as the main referrals. This shows that people undergoing COL in the pandemic year were mostly symptomatic, while routine CRC screening was likely hampered by fear of contamination by SARS-CoV-2.

Non-invasive screening methods, such as FOBT and fecal immunohistochemical tests (FIT) with higher positivity limits, have been proposed by many authors as a solution to meet the need to retake patients at risk, as well as prioritization by sex, age and history screening^(26,32,33). Thus, colonoscopic surveillance would be reserved for cohorts with the greatest expected benefit⁽³³⁾.

As a direct consequence of the decrease in CRC diagnoses during the pandemic, several studies have pointed to delays in starting treatment and an increase in the number of advanced cases and disease-related mortality^(25,34,35). However, more studies are still needed on this topic in the Brazilian population. In the same respect, Morris et al. (2021)⁽²⁵⁾, highlights the importance of creating a rapid system of data records to effectively inform the real situation of health services during critical periods, such as the pandemic.

Despite the work presenting some limitations, such as the fact that the sample only included elective COL performed in a single private clinic in the city of Goiânia, it is noteworthy that the findings are compatible with those found in other studies.

CONCLUSION

There was a significant decrease in the number of COL performed in 2020 compared to 2019, which can be attributed to fear of COVID-19 infection and restrictions. Despite the reduction in overall procedures, there was a notable increase in the detection rate of cancer and adenomatous polyps per procedure in

2020, suggesting a higher proportion of symptomatic patients seeking medical attention. In spite of the increased detection rate per procedure, the absolute number of tumors and adenomas found decreased in 2020, potentially resulting in diagnostic losses and fewer cases of prevented CRC.

In summary, the findings suggest that the COVID-19 pandemic had a significant impact on CRC screening and diagnosis patterns, highlighting the need for adapted strategies to ensure continued access to essential preventive healthcare services during similar crises in the future.

Authors' contribution

Silvério NR and Monteiro IC: Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; Drafting the work or reviewing it critically for important intellectual content; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Prudente ALN: Substantial contributions to the acquisition of data for the work. Rosa CAN: Substantial contributions to the acquisition of data for the work. Silvério AO: Final approval of the version to be published; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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RESUMO – Contexto – O câncer colorretal (CRC) é a terceira neoplasia maligna mais comum globalmente e a segunda principal causa de morte relacionada ao câncer no mundo. A pandemia da COVID-19 ocasionou a suspensão de exames de triagem rotineiros pelos serviços de saúde. É estimado uma queda de 35,5% do total de diagnóstico de câncer em 2020 quando comparado à 2019. **Objetivo** – O atual trabalho buscou avaliar o impacto dessas medidas restritivas no diagnóstico de adenomas (AP) e de CRC em uma clínica privada em Goiânia, Brasil. **Métodos** – Trata-se de um estudo de corte transversal, que analisou colonoscopias realizadas durante os períodos de 20 de março a 31 de outubro de 2019 e de 2020. Aprovado pelo Comitê de Ética e Pesquisa (CAAE-45631421.0.0000.0037). Dos prontuários foram retiradas informações sobre identificação, indicação do exame, achados colonoscópicos e histopatológicos. **Resultados** – Foram analisados achados colonoscópicos de 10.232 pacientes, que foram divididos em 2 grupos de acordo com o ano de realização do exame. Em 2019, 6.777 (66,2%) colonoscopias foram realizadas, já em 2020, 3.455 (33,8%), demonstrando uma queda de 51,0%. Dentre esses exames, foram diagnosticados 3.267 (31,9%) pólipos, sendo que, 72,1% eram AP (68,8% em 2019 e 78,3% em 2020, $P < 0.001$). E por sua vez, alto grau de displasia foi visto em 5,0% dos AP (4,9% em 2019 e 5,8% em 2020, $P < 0,34$). CRC foi diagnosticado em 121 (1,2%) (0,9% em 2019 e 1,6% em 2020, $P < 0.001$). **Conclusão** – A pandemia de COVID-19 reduziu significativamente as colonoscopias em 2020, principalmente devido ao medo de infecção e as restrições. No entanto, a taxa de detecção de câncer e pólipos por procedimento aumentou, indicando que mais pacientes sintomáticos buscaram atendimento médico. Apesar disso, o número absoluto de tumores e adenomas encontrados diminuiu, potencialmente causando perdas diagnósticas e menos casos de câncer colorretal prevenidos. Assim, estratégias adaptativas são vitais para manter serviços de saúde essenciais durante crises semelhantes.

Palavras-chave – Câncer colorretal; COVID-19; rastreamento.

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