

## Clinical and epidemiological characterization of patients diagnosed with colorectal cancer

Diana de la Caridad Gómez-González <sup>1</sup> , Omar Diego Rodríguez-Sánchez <sup>1</sup>, Rachely Jiménez-Vera <sup>1</sup> , José Carlos Sánchez-Fernández <sup>2</sup> 

<sup>1</sup> Universidad de Ciencias Médicas de La Habana. Facultad de Ciencias Médicas de Artemisa. Artemisa, Cuba.

<sup>2</sup> Universidad de Ciencias Médicas de La Habana. Hospital "Ciro Redondo García". Artemisa, Cuba.

### ABSTRACT

**Introduction:** colorectal cancer is the third most frequent cause of morbidity and mortality due to cancer in the world; prognosis that is related to its late diagnosis. **Objective:** to characterize clinically and epidemiologically patients diagnosed with colorectal cancer. **Method:** an observational, descriptive, cross-sectional study was carried out in the Department of Digestive Endoscopy of the General Teaching Hospital "Ciro Redondo García" in Artemisa, in the period between January 1st and December 31st, 2019. The universe was consisting of 12 patients diagnosed with colorectal cancer and confirmation of the histological type by biopsy. Descriptive statistics were produced. **Results:** patients between 50 and 59 years old and those over 70 years old (33.3%) predominated; the female sex stood out with a total of 9 women. The most frequent location of the tumor was at the level of the rectosigmoid with 8 patients (66.7%) and the most common clinical manifestation was lower gastrointestinal bleeding, present in 5 patients (41, 7%). The most frequent histological type was adenocarcinoma (91.7%). **Conclusions:** superiority was shown in the number of cases from 50 years of age and the female sex predominated. Lower gastrointestinal bleeding was the most common clinical manifestation and the rectosigmoid was the most common site of these tumors. The most frequent histological diagnosis was adenocarcinoma.

**Keywords:** Adenocarcinoma; Epidemiology; Colorectal neoplasms; Signs and Symptoms.

Colorectal cancer is a malignant tumor that originates within the walls of the large intestine and can arise from any of the three layers: mucous membrane, muscle and serous<sup>1,2,3</sup>.

Colorectal cancer is a malignant tumor that originates within the walls of the large intestine and can arise from any of the three layers: mucous membrane, muscle and serous<sup>1,2,3</sup>.

It is the third cause of cancer morbidity and mortality in the world for both men and women<sup>4</sup>. Some authors suggest that survival after 5 years goes from 55-60 %<sup>5,6</sup>. WHO estimates that the impact on the population for the year 2025 amounts to 80 % of the 20 million new cases<sup>7</sup>.

According to the 2020 Statistical Yearbook, the disease was the fourth most frequent cause of death in patients over 60 years old in Cuba<sup>8</sup>.

Population aging and progressive exposure to risk factors explain the increase in morbidity and mortality from colorectal cancer. Most of the studies suggest that the etiopathogenesis is heterogeneous, where intrinsic factors of the host have been described, in addition to external or environmental factors<sup>9,10,11</sup>.

In the province of Artemisa there are no studies that describe the behavior of malignant colon tumors in the territory, however there is an increase in their incidence. Despite the possibilities of early diagnosis that characterize this tumor and the development of a health program that is carried out for this purpose, in most of cases the diagnosis is lately made, which reduces the survival chances. Motivated by this, the present investigation is carried out, with the objective of clinically and epidemiologically characterizing patients diagnosed with colorectal cancer in the Department of Digestive Endoscopy of the "Ciro Redondo García" Hospital in 2019.

### METHOD

**Type of study:** an observational, descriptive, cross-sectional study was carried out with a group of patients diagnosed with colorectal cancer, treated at

### OPEN ACCESS

Corresponding author: Diana de la Caridad Gómez-González  
email: [dianagomez99@nauta.cu](mailto:dianagomez99@nauta.cu)

**Posted:** February 5<sup>th</sup>, 2022

**Received:** October 24<sup>th</sup>, 2021; **Accepted:** December 26<sup>th</sup>, 2021

### Cite as:

Gómez-González DC, Rodríguez-Sánchez OD, Jiménez-Vera R, Sánchez-Fernández JC. Caracterización clínica y epidemiológica de pacientes con diagnóstico de cáncer colorrectal. 16 de Abril [Internet]. 2022 [citado: fecha de acceso]; 61(283):e1539. Disponible en: [http://www.rev16deabril.sld.cu/index.php/16\\_04/article/view/1539](http://www.rev16deabril.sld.cu/index.php/16_04/article/view/1539)

### Conflict of interest

The authors declare no conflict of interest.

the Department of Digestive Endoscopy of the “Ciro Redondo García” Hospital in Artemisa in the period from January 1 to December 31, 2019.

**Universe and sample:** the universe consisted of 12 patients diagnosed with colon cancer and with confirmation of the histological type by biopsy, with complete medical records, treated in the Digestive Endoscopy department during the aforementioned period of time.

**Variables and data collection:** the analyzed variables were: sex, age group, clinical manifestations (lower gastrointestinal bleeding, abdominal pain, weight loss, constipation, anemic syndrome, change in bowel habit, general syndrome, asthenia, palpable tumor, paralytic ileus, dyspepsia, stool disorder), tumor location (rectum-sigmoid, descending, hepatic flexure, cecum and ascending, anal canal) and histological diagnosis (adenocarcinoma, squamous cell carcinoma).

Data were obtained from medical records, endoscopic results from the archive of the Digestive Endoscopy department, and biopsies from the hospital's Pathological Anatomy department.

**Statistical processing:** the data obtained were processed in a Microsoft Excel® database, where they were analyzed using descriptive statistics and expressed as absolute frequency and percentage.

**Ethical standards:** the research was carried out with the prior approval of the Medical Ethics Committee and the Scientific Council of the “Ciro Redondo García” General Teaching Hospital in Artemisa. The ethical principles of beneficence, non-maleficence, justice and autonomy established in the II Declaration of Helsinki were complied with. The integrity and confidentiality of patients and their personal information were respected.

## RESULTS

Patients between 50 and 59 years old and those older than 70 years old (33,3 %) predominated; female sex stood out with a total of 9 women (Table 1).

The most frequent location of the tumor was at the level of the rectum-sigmoid (66,7 %) with 8 patients, followed by the other locations in equal proportion, with one in each case (Table 2).

The most common clinical manifestation was lower gastrointestinal bleeding, present in 5 patients (41,7 %). At the level of the rectum-sigmoid, lower gastrointestinal bleeding predominated (4 cases, 33,4 %), in the descending, abdominal pain and constipation (1 case of each, 8,3 %) and in the rest of the locations the clinical manifestations were scarce (Figure 1).

## DISCUSSION

Numerous studies mention age and sex as risk factors for colon injuries. It is suggested that around 90 % of colorectal cancer develops in people over 50 years old

Table 1. Distribution of patients according to age group and sex. 2019. Department of Digestive Endoscopy “Ciro Redondo García” Hospital. Artemisa, Cuba

Age group (years)	Male Sex		Femenine Sex		Total	
	No.	%	No.	%	No.	%
40-49	1	8,3	0	0	1	8,3
50-59	1	8,3	3	25	4	33,3
60-69	1	8,3	2	16,7	3	25
70 and over	0	0	4	33,3	4	33,3
Total	3	25	9	75	12	100

Source: medical records and files of the Digestive Endoscopy department

Table 2. Distribution of patients according to tumor location.

Location	No.	%
Rectum-sigmoid	8	66,7
Descending	1	8,3
Hepatic Flexure	1	8,3
Blind and Ascending	1	8,3
Anal Canal	1	8,3
Total	12	100

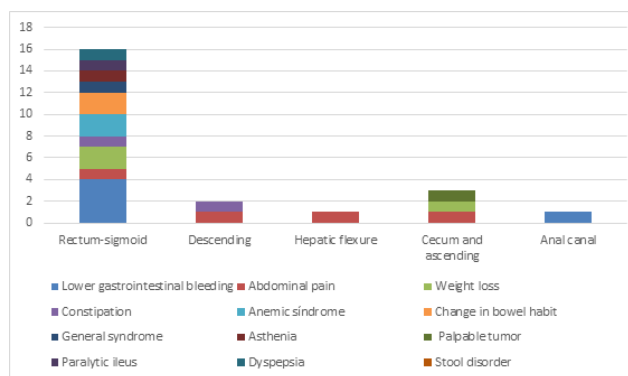


Figure 1. Distribution of clinical manifestations according to tumor location

with a peak incidence between 65 and 75 years old, with an increasing trend in females<sup>12,13,14</sup>.

In a study carried out in the Gastroenterology Service of the “General Calixto Garcia” Teaching Hospital, female sex and the age group of 68 years old and over predominated<sup>12</sup>. These results coincide with those obtained in the present study, where female sex from 50 years old was observed more frequently, fundamentally in the age groups of 50 to 59 years old and 70 years old and over.

Aging involves a series of morphophysiological transformations that affect the entire organism and decrease the adaptation capacity of the gastrointestinal mucous membrane, which increases the risk of colorectal malignant lesions. The higher incidence in women could be justified due to hormonal factors that are accentuated at this stage of life<sup>1</sup>.

However, Utrera *et al.*<sup>15</sup>, in a study carried out in a family doctor's office in Cienfuegos, reported a predominance of the age group 50-59 years old, with a predominance of males in 54,1 %. Garcia *et al.*<sup>16</sup> also observed a predominance of patients in this age range where male sex behaved with a slight superiority.

In the studies by Cuevas *et al.*<sup>17</sup> and Torreblanca *et al.*<sup>18</sup> the rectum-sigmoid predominated as the most common seat of these tumors, similar behavior was reported in this investigation while Lora<sup>19</sup> points out the anal rectum location as the most frequent. The predominance of this location may be due to the characteristics of this area where there is less intestinal motility and to the action of toxins from fecal stools<sup>18</sup>.

In this study, the most frequent clinical manifestation was lower gastrointestinal bleeding, which is related to the predominant location, the rectum-sigmoid. At the level of the sigmoid, in addition to lower gastrointestinal bleeding, there may also be changes in bowel habit, flatulence, tenesmus, rectal pain and obstructive symptoms<sup>1</sup>.

Torreblanca *et al.*<sup>18</sup> pointed out the change in bowel habit and enterorrhagia as the most frequent clinical manifestations, a similar behavior was reported by Trujillo<sup>20</sup> on his investigation.

Rubio *et al.*<sup>21</sup> reflect in their work a predominance of adenocarcinoma with respect to squamous cell carcinoma; also the data offered by Arévalo *et al.*<sup>22</sup> coincide with the results of the present investigation.

However, Tellez<sup>23</sup>, in Mexico, found a predominance of mucinous tumor in 48 % of cases.

Other authors also point to adenocarcinoma as the most frequent histological variety in their investigations<sup>19,24</sup> and Nuñez *et al.*<sup>25</sup> report that it has been recognized internationally as the most representative histological variant.

The study of the clinical and epidemiological behavior of colorectal cancer makes it possible to refine and direct its research towards risk groups so that early diagnoses and better survival rates are achieved.

## CONCLUSIONS

Superiority was observed in the number of cases from 50-year-olds and female sex predominated. Lower gastrointestinal bleeding was the most common clinical manifestation and the rectum-sigmoid was the main site of these tumors. The most frequent histological diagnosis was adenocarcinoma.

## AUTHORSHIP

**Diana de la Caridad Gómez-González:** conceptualization, research, methodology, draft-original writing, reviewing.

**Omar Diego Rodríguez-Sánchez:** conceptualization, data curation, resources, draft-original writing, review, validation and editing.

**Rachely Jiménez-Vera:** data curation, resources, supervision, validation and edition.

**José Carlos Sánchez-Fernández:** research, methodology, resources, review, validation and editing.

## FUNDING

The authors did not receive funding for this article.

## BIBLIOGRAPHIC REFERENCES

- García Espinosa A, García Villacampa G, Pérez González S. Caracterización clínica-epidemiológica del cáncer de colon y recto. Pinar del Río. 2012-2018 [Internet]. 2020 [citado 2/11/21]. Disponible en: <http://www.forumestudiantil-cienciasmedicas.sld.cu/index.php/forum/2020/paper/viewFile/53/51>
- González E. Cáncer de colon y recto [Internet]. Madrid: SEOM; 2020 [citado 2/11/21]. Disponible en: <https://seom.org/info-sobre-el-cancer/colon-recto?showall=1>
- Sánchez-Monge M. Cáncer de colon [Internet]. Madrid: Asociación Española Contra el Cáncer; 2019 [citado 3/11/21]. Disponible en: <https://cuidateplus.marca.com/enfermedades/cancer/cancer-de-colon.html>
- Guibert-Adolfo LA, Quiroga-Merriño LE, Estrada-Brizuela Y, Maestre-Ramos OM, Guilarte-León G. Caracterización de los pacientes con cáncer de colon. AMC [Internet]. 2018 [citado 21/01/20]; 22(3):324-335. Disponible en: <http://revistaamc.sld.cu/index.php/amc/article/view/5552>
- Glynn-Jones R, Wyrwicz L, Tret E, Brown G, Rodel C, Cervantes A *et al.* Rectal cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol [Internet]. 2017 [citado 5/12/21]; 28(4): iv22-iv40. Disponible en: <https://pubmed.ncbi.nlm.nih.gov/28881920>
- Sanguinetti JM, Lotero Polesel JC, Piscocoya A, Sáenz Fuenzalida R. Colorectal cancer screening: a South American perspective. Rev. gastroenterol. Perú [Internet]. 2020 [citado 5/12/21]; 40(3):238-45. Disponible en: [http://www.scielo.org.pe/scielo.php?script=sci\\_arttext&pi-](http://www.scielo.org.pe/scielo.php?script=sci_arttext&pi-)

- [d=S1022-51292020000300238&lng=es.](#)
7. Swartz AW, Eberth JM, Strayer SM. Preventing colorectal cancer or early diagnosis: Which is best? A re-analysis of the U.S. Preventive Services Task Force Evidence Report. *Prev Med* [Internet]. 2019 [citado 5/12/21]; 118:104-112. Disponible en: <https://pubmed.ncbi.nlm.nih.gov/30367971/>
  8. Ministerio de Salud Pública. Dirección de Registros Médicos y Estadísticas de Salud. Anuario estadístico de salud 2020. [Internet] La Habana: MINSAP; 2021 [citado 5/12/21]. Disponible en: [https://www.google.com/url?sa=t&source=web&rct=j&url=https://salud.msp.gob.cu/wp-content/Anuario/Anuario-2020.pdf&ved=2ahUKEwiqz4Dc6a31AhU2RzABHRLRDVIQFnoECBkQAQ&usg=AOvVaw1\\_oCug-GH2KcMuv4kgQoqpm](https://www.google.com/url?sa=t&source=web&rct=j&url=https://salud.msp.gob.cu/wp-content/Anuario/Anuario-2020.pdf&ved=2ahUKEwiqz4Dc6a31AhU2RzABHRLRDVIQFnoECBkQAQ&usg=AOvVaw1_oCug-GH2KcMuv4kgQoqpm)
  9. Gálvez Díaz JL. Incidencia y características clínico epidemiológicas del síndrome de resección anterior baja de recto-Hospital Nacional durante 2015-2021. [Internet]. Perú: Universidad Nacional Pedro Ruiz Gallo; 2021. Disponible en: <https://repositorio.unprg.edu.pe/handle/20.500.12893/9337>
  10. Vanegas D, Ramírez López L, Limas Solano LM, Pedraza Bernal A, Monroy Díaz AL. Revisión: Factores asociados a cáncer colorrectal. *RMR* [Internet]. 2020 [citado 3/11/21]; 26(1):24-32. Disponible en: <https://moodle2.utp.edu.co/index.php/revistamedica/article/view/23111>
  11. Alcívar Chávez JB, Vélez León AR. Prevalencia de cáncer colorrectal en pacientes atendidos en la consulta externa en un hospital general de la ciudad de Guayaquil. [Internet]. Ecuador: Universidad Católica de Santiago de Guayaquil; 2021. Disponible en: <http://201.159.223.180/handle/3317/16654>
  12. Fernández-Sotolongo J, Ortiz-Montero Y, Rodríguez-Pérez L, Suárez-Romero M. Pesquisa de cáncer colorrectal en pacientes con sangre oculta en heces fecales. Archivos del Hospital Universitario "General Calixto García" [Internet]. 2021 [citado 5/12/21]; 9(2):12-14 Disponible en: <http://www.revcalixto.sld.cu/index.php/ahcg/article/view/667>
  13. Agudelo L, Isaza-Restrepo A, Figueroa C, Monroy A, Padrón J, Villavieces M. Experiencia en el manejo de cáncer colorrectal en Méderi-Hospital Universitario Mayor, 2012-2014. *Rev Colomb Cir* [Internet]. 2017 [citado 4/01/21]; 32(4):262-268. Disponible en: [http://www.scielo.org.co/scielo.php?script=sci\\_arttext&pid=S2011-75822017000400004&lng=en](http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S2011-75822017000400004&lng=en)
  14. Cobos Valdés D, Martínez Núñez I, Lissabet Vázquez MM. Acción preventiva para evitar el cáncer de próstata y colon en los trabajadores del Centro de Inmunología y Biopreparados de Holguín. *Rev Cubana Salud Trabajo* [Internet]. 2015 [citado 4/01/21]; 16(1):25-7. Disponible en: <https://www.google.com/url?q=https://www.medigraphic.com/pdfs/rev-cubsaltra/cst-2015/cst151d.pdf&sa=U&ved=2ahUKEwjHo523qcn0AhXmRTABHWOCZUQFnoECAQQAg&usg=AOvVaw0sK3tzSLp4cxdqY3JySSC1>
  15. Díaz Utrera G, Rodríguez Pérez L, Yanes Toledo P. Cáncer colorrectal: factores de riesgo en pacientes mayores de 50 años en Cienfuegos. *Rev. Finlay* [Internet]. 2021 [citado 5/12/20]; 11(3):272-278. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S2221-24342021000300272&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2221-24342021000300272&lng=es)
  16. García Méndez IM, Benavides Couto A, Arrechea Betancourt Y, Surí García CB, de la Mora MF. Caracterización de los factores de riesgo modificables para el cáncer colorrectal. *Rev. Finlay* [Internet]. 2021 [citado 5/11/21]; 11(2): 200-206. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S2221-24342021000200200&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2221-24342021000200200&lng=es)
  17. Cuevas R. Caracterización del cáncer de colon. *Cir Parag* [Internet]. 2017 [citado 4/01/21]; 41(1):[aprox. 6 p.]. Disponible en: <http://scielo.iics.una.py/pdf/sopaci/v41n1/2307-0420-sopaci-41-01-00008.pdf>
  18. Torreblanca Xiques A, Fonseca Chong L, Borrero Vaz Y. Aspectos clínicos y genéticos en pacientes del municipio de Las Tunas diagnosticados con cáncer de colon. *Rev Electrón Dr. Zoilo E. Marinello Vidarrueta* [Internet]. 2015 [citado 4/01/21]; 40(3):[aprox. 5 p.]. Disponible en: <http://www.revzoilomarinello.sld.cu/index.php/zmv/article/view/85/html2>
  19. Lora Acuña LJ. Caracterización del cáncer colorrectal en pacientes atendidos en la ESE hospital universitario del caribe durante el periodo 2015-2019. [Internet]. España: Universidad de Cartagena; 2020. Disponible en: <https://repositorio.unicartagena.edu.co/handle/11227/11663>
  20. Trujillo-Pérez YL, Rojas-Peláez Y, Carmenates-Álvarez BM, Reyes-Escobar AD, Pérez-Álvarez M. Comportamiento del cáncer colorrectal en el Hospital Provincial Clínico Quirúrgico Docente Amalia Simoni. *AMC* [Internet]. 2019 [citado 9/01/21]; 23(2):188-197. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1025-02552019000200188&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1025-02552019000200188&lng=es)
  21. Rubio González T, Verdecia Jarquel M. Algunos aspectos genéticos y epidemiológicos relacionados con el cáncer colorrectal. *MEDISAN* [Internet]. 2016 [citado 4/01/21]; 20(3):372-383. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1029-30192016000300014](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1029-30192016000300014)
  22. Arévalo C, Chunga N, Alarcón S, Rodríguez O, Arévalo F, Montes P et al. Localización y tamaño de los adenomas del colon como factores asociados a displasia de alto grado. *Rev gastroenterol Perú* [Internet]. 2017 [citado 4/01/21]; 37(4):301-304. Disponible en: [http://www.scielo.org.pe/scielo.php?script=sci\\_arttext&pid=S1022-51292017000400002&lng=es](http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1022-51292017000400002&lng=es)
  23. Téllez Ávila FI. Cáncer de colon. *Rev Gastroenterol Méx* [Internet]. 2015 [citado 4/01/21]; 80(Supl

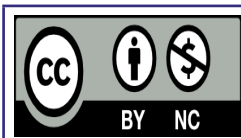
- 1):96-98. Disponible en: <http://www.revistagastroenterologiamexico.org/es/pdf/X0375090615358202/S300/>
24. Rosales-Alcántara Y, Ramos-Reymont D, Placeres-Hernández J, García-Nieto P, Castillo-Hernández I. Caracterización de enfermos operados de cáncer rectal. Hospital Universitario Clínico Quirúrgico Comandante Faustino Pérez Hernández. Rev. Méd. Electrón. [Internet]. 2021 [citado 5/12/21]; 43(6):[aprox. 12 p.]. Disponible en: <http://www.revmedicaelectronica.sld.cu/index.php/rme/article/view/4269>
25. Núñez Ju JJ, Coronado CC, Anchante Castillo E, Sandoval Jaurégui J, Arenas Gamios J. Cirugía laparoscópica en una sola etapa en cáncer de colon con metástasis hepática sincrónica en el Hospital Nacional Guillermo Almenara, Lima, Perú. Rev Gastroenterol Perú [Internet]. 2016 [citado 4/01/21]; 36(1):66-70. Disponible en: [http://www.scielo.org.pe/scielo.php?pid=S1022-51292016000100009&script=sci\\_abstract](http://www.scielo.org.pe/scielo.php?pid=S1022-51292016000100009&script=sci_abstract)

## Caracterización clínica y epidemiológica de pacientes con diagnóstico de cáncer colorrectal

### RESUMEN

**Introducción:** el cáncer colorrectal es la tercera causa más frecuente de morbilidad y mortalidad por cáncer en el mundo; pronóstico que se encuentra relacionado con su diagnóstico tardío. **Objetivo:** caracterizar clínica y epidemiológicamente a pacientes diagnosticados con cáncer colorrectal. **Método:** se realizó un estudio observacional, descriptivo, de corte transversal en el Departamento de Endoscopia Digestiva del Hospital General Docente "Ciro Redondo García" de Artemisa, en el período comprendido del 1ro de enero al 31 diciembre del 2019. El universo estuvo constituido por 12 pacientes con diagnóstico de cáncer colorrectal y confirmación del tipo histológico por biopsia. Se utilizó estadística descriptiva. **Resultados:** predominaron los pacientes entre 50 y 59 años y los mayores de 70 años (33,3 %); se destacó el sexo femenino con un total de 9 mujeres. La localización más frecuente del tumor fue a nivel del rectosigmoides con 8 pacientes (66,7 %) y la manifestación clínica más común fue la hemorragia digestiva baja, presente en 5 pacientes (41,7 %). El tipo histológico más frecuente fue el adenocarcinoma (91,7 %). **Conclusiones:** se observó superioridad en el número de casos a partir de los 50 años y predominó el sexo femenino. La hemorragia digestiva baja fue la manifestación clínica más común y el rectosigmoides fue el lugar de asiento más común de estos tumores. El diagnóstico histológico más frecuente fue el adenocarcinoma.

**Palabras clave:** Adenocarcinoma; Epidemiología; Neoplasias colorrectales; Signos y síntomas.



Este artículo de *Revista 16 de Abril* está bajo una licencia Creative Commons Atribución-No Comercial 4.0. Esta licencia permite el uso, distribución y reproducción del artículo en cualquier medio, siempre y cuando se otorgue el crédito correspondiente al autor del artículo y al medio en que se publica, en este caso, *Revista 16 de Abril*.