



## **Behavior of high digestive bleeding at Ciro Redondo Garcia Hospital in 2020**

*Caracterización de pacientes con sangramiento digestivo alto en el Hospital Ciro Redondo García en 2020*

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### **ABSTRACT**

**Introduction:** high digestive bleeding represents one of the most frequent causes of morbidity and mortality in the General Surgery Services. It constitutes a very frequent medical-surgical emergency.

**Objective:** to characterize clinically hospitalized patients with high digestive bleeding in the General Teaching Hospital Ciro Redondo García in Artemisa, in 2020.

**Methods:** an observational, descriptive, cross-sectional study was carried out in the General Teaching Hospital Ciro Redondo García in Artemisa, in 2020. The universe consisted of 71 patients with diagnosis of high digestive bleeding attended in the General Surgery Services. During the period of time indicated above. Descriptive statistics were used.

**Results:** patients over 60 years of age predominated, with males being the most affected with 47 cases for 66,2 %. Peptic ulcer was the most common pathological history with 54,9 %. The predisposing factor that occurred most frequently was coffee consumption with 52 patients. The majority of patients studied did not consume non-steroidal antinflammatory drugs. The most frequent form of presentation was mane with 81,7 %.

**Conclusions:** The results were similar to the international and national trends, the predominant sex was male and the age over 60 years old. Peptic ulcer was the most frequent pathological antecedent. Coffee consumption can cause the triggering of this pathology. Most of the studied patients did not consume non steroid antinflammatory. The most common form of clinical presentation was the mane.

**Keywords:** Hemorrhage; Hematemesis; Patients; Digestive system

## **RESUMEN**

**Introducción:** el sangramiento digestivo alto representa una de las causas más frecuentes de morbilidad y mortalidad en los servicios de cirugía general; esta constituye una emergencia médico-quirúrgica.

**Objetivo:** caracterizar clínicamente a los pacientes hospitalizados con sangramiento digestivo alto en el Hospital General Docente Ciro Redondo García de Artemisa en el 2020.

**Métodos:** se realizó un estudio observacional, descriptivo, de corte transversal en el Hospital General Docente Ciro Redondo García de Artemisa, en el periodo comprendido de enero a diciembre del 2020. El universo estuvo compuesto por 71 pacientes con manifestaciones de sangramiento digestivo alto, atendidos en el servicio de Cirugía General durante el periodo de tiempo señalado. Se utilizó la estadística descriptiva.

**Resultados:** predominaron los pacientes mayores de 60 años, siendo el sexo masculino el más afectado con 47 casos para un 66,2 %. La úlcera péptica fue el antecedente patológico más frecuente con un 54,9 %. El factor predisponente que con mayor asiduidad se presentó fue el consumo de café con 52 pacientes. La mayoría de los pacientes estudiados no consumían antinflamatorios no esteroideos. La forma de presentación más frecuente fue la melena con un 81,7 %.

**Conclusiones:** los resultados fueron similares a las tendencias mundiales y nacionales, predominó el sexo masculino y los mayores de 60 años. La úlcera péptica fue el antecedente patológico más frecuente. El consumo de café puede provocar el desencadenamiento de esta patología. La gran mayoría de los pacientes estudiados no consumían antinflamatorios no esteroideos. La melena fue la forma de presentación clínica más frecuente.

**Palabras clave:** Hemorragia; Hematemesis; Pacientes; Sistema Digestivo

## INTRODUCTION

Upper digestive bleeding (UGIB) is defined as any blood loss of sufficient amount to produce hematemesis or melena, whose origin is between the upper esophageal sphincter and the duodenojejunal angle, in addition to those that, produced in a neighboring organ, spill their contained in the digestive system through natural ducts (biliopancreatic tree) or pathological ducts (spontaneous, traumatic or surgical fistulas) in the section limited by the two points referred to.<sup>(1)</sup>

According to their etiology, they can be divided into varicose or non-varicose origin;<sup>(2)</sup> and according to the period of time, they can be acute or chronic, with different treatment and prognosis in both cases.<sup>(3)</sup>

The most frequent causes of digestive bleeding are the following: peptic ulcer (30-50 %), esophageal varices (10-30 %), gastroduodenal erosions (10-15 %), esophagitis (10-15 %) and vascular malformations (5-10 %).<sup>(2)</sup>

Annually it ranges between 100 to 150 cases per 100,000 inhabitants per year, which must be immediately hospitalized for this reason.<sup>(5)</sup> In the United Kingdom it has an incidence of 103-172 cases per 100,000 inhabitants. The country where the highest annual incidence is reported is the United States, with an approximate range of 170 to 180 cases per 100,000 inhabitants; it increases progressively with age and is more common in men. In Cuba, it



represents 10-20 % of all admissions to general surgery rooms. ADS has an estimated mortality of around 5-20 %, depending on the amount of bleeding, its origin, the patient's age and other associated diseases. (6,7,8)

Due to the importance and relevance of this topic, endorsed by the changes that have occurred in recent years in the knowledge and management of ADS, as well as the high incidence that this syndrome has in Cuba, this research is carried out with the objective of clinically characterize patients admitted with SDA at the Ciro Redondo García de Artemisa Hospital in the period from January to December 2020.

## **MATERIALS AND METHODS**

An observational, descriptive and cross-sectional study was carried out on patients admitted with SDA at the Ciro Redondo García Hospital from January to December 2020.

The universe was made up of 71 patients with ADS, treated in the Surgery Service during the aforementioned period of time. The inclusion criterion was those who were diagnosed with the disease during the study period.

Demographic variables, sex (male and female) and age group (20-29, 30-39, 40-49, 50-59, 60 and over), clinical manifestations (melena, hematemesis, hematochezia), pathological history were analyzed personal problems (esophageal varicose veins, gastritis, peptic ulcer, high blood pressure), consumption of non-steroidal anti-inflammatory drugs (yes, not mentioned) and toxic habits (alcohol, coffee, cigarettes, not mentioned).

Likewise, the medical records from the Ciro Redondo García Hospital archive were taken as a source. The research was carried out after approval by the Medical Ethics Committee and the Scientific Council of said hospital. The ethical principles of beneficence, non-maleficence, justice and autonomy were complied with. The integrity and confidentiality of the patients, as well as their personal information, were respected.

## **RESULTS**

A distribution was made according to the age group and sex of the patients with SDA; where it was observed that the age group in which the majority of affected patients were found was 60 years and older, with a total of 36 patients for 50,7 %, there was a decrease in frequency in younger patients age. The male sex was the most affected with 47 cases for 66,2 %. (Table 1)



**Table 1.** Distribution of patients according to age and sex at the Ciro Redondo García Hospital in 2020

Age group (years)	Sex				Total	
	Male		Female			
	No.	%	No.	%	No.	%
20-29	2	2,8	1	1,4	3	4,2
30-39	4	5,6	2	2,8	6	8,5
40-49	5	7,0	4	5,6	9	12,7
50-59	9	12,7	8	11,3	17	23,9
60 y más	27	38,0	9	12,7	36	50,7
Total	47	66,2	24	33,8	71	100

**Source:** Patient medical records

The most prevalent associated disease was peptic ulcer with a representation of 39 patients, which represented 59,4 % of the total, followed by arterial hypertension with a total of 27 patients for 38 % and gastritis with a total of 15 patients for 15,5 %. (Table 2)

**Table 2.** Distribution of patients according to personal pathological history

Personal pathological history	Patients	%
Arterial hypertension	27	38
Gastritis	15	21,1
Esophageal varices	6	8,4
Peptic ulcer	39	54,9
Does not refer	8	11,2

**Source:** Patient medical records

The distribution according to toxic habits was represented in table 3. Coffee consumption turned out to be the most frequent, with a total of 52 patients, for a 73,2 %.

**Table 3.** Distribution of patients according to toxic habits



Toxic habits	Patients	%
Alcohol	29	40,8
Coffee	52	73,2
Cigar	23	32,3
Does not refer	11	15,4

**Source:** Patient medical records

The consumption of non-steroidal anti-inflammatory drugs was present in 32 patients, which represents 45,1 % of the total, with patients who did not consume these medications being more frequent with a total of 39 for 54,9 %. (Table 4)

**Table 4.** Distribution of patients according to the consumption of non-steroidal anti-inflammatory drugs

Consumption of non-steroidal anti-inflammatory drugs	Patients	%
Yes	32	45,1
Does not refer	39	54,9
Total	71	100

**Source:** Patient medical records

It was found that the predominant form of presentation of ADS was melena with 58 patients, which represent 81,7 %, and hematochezia was the least frequent. (Table 5)

**Table 5.** Distribution of patients according to the form of presentation of ADS

Form of presentation	Pacientes	%
Hematemesis	19	26,7
Mane	58	81,7
Hematochezia	9	12,6

**Source:** Patient medical records



## DISCUSSION

ADS constitutes a potentially serious emergency and continues to be one of the most frequent causes of hospitalization in digestive pathologies.<sup>(9)</sup>

The age of patients with SDA in most of the reviewed publications is greater than or equal to 60 years,<sup>(10,11)</sup> with which this study coincides; although other studies report average ages of less than 60 years.<sup>(12)</sup>

Apparently the aging of the population on a global scale has meant that patients with this syndrome are, fundamentally, in old age, although it is not pathognomonic of this syndrome.

There are reports that coincide with what has been observed regarding the frequency with which the male sex is affected;<sup>(12,13)</sup> other reviews, both national<sup>(1)</sup> and foreign<sup>(14)</sup> point to a greater number of cases in women. This fact is explained because they constitute the group of patients with the highest consumption of non-steroidal anti-inflammatory drugs (NSAIDs), which is closely related to the appearance of SDA and its possible unfavorable evolution.<sup>(1)</sup> However, other studies do not find differences in relation to the sex of the patients.<sup>(10)</sup>

Although ADS may have many pathological antecedents, the vast majority of bleeding episodes are due to a reduced type of lesions. The presence of the pathological antecedents mentioned in the study is completely in sync with the reviewed literature, in which it is proposed that 90 % of SDA cases are due to one of these causes;<sup>(15)</sup> Thus, it is also proposed that peptic ulcer is the most frequent cause of ADS.<sup>(16)</sup>

Pozo González et al.,<sup>(17)</sup> state that the two most common causes of ADS are peptic ulcers and esophageal varicose veins secondary to portal hypertension. In a study carried out by Pinto C et al.,<sup>(11)</sup> they stated that previous bleeding predisposes to a greater risk of new bleeding; however, in the study carried out, no history of previous bleeding was collected.

Among the toxic habits, coffee consumption prevailed, which coincides with a study developed by Contreras Omaña et al.,<sup>(18)</sup> but this is not the case with what was reported by Solorzano Pachay<sup>(19)</sup>, where the consumption of alcohol and tobacco occupy the first positions.

The consumption of NSAIDs, which leads to a disorder of the gastroduodenal protective barrier, increases the risk of developing ulcers in the stomach and



duodenum respectively by 48 times; it is estimated that 13-35 % of the complications of gastroduodenal peptic ulcers are due to the use and abuse of NSAIDs. Patients who suffer from ulcers and consume NSAIDs are 3 times more likely to have an acute bleeding episode than those who do not consume them. <sup>(20,8)</sup>

Salvatierra Layten et al., <sup>(21)</sup> find that 54,1 % of patients with digestive bleeding consume anti-inflammatories. This last study was retrospective and multicenter (Rebagliati, Hipólito Unanue, Dos de Mayo and Cayetano Heredia Hospitals), with the most consumed NSAIDs being: aspirin (60 %), ibuprofen (28,5 %), diclofenac (15,8 %), and naproxen (15,8 %); 31% used more than one NSAID simultaneously.

The consumption of NSAIDs occupies a prominent place in studies carried out by Naddaf R et al., <sup>(13)</sup> due to its high incidence, although this does not coincide with the present study.

Regarding the form of presentation of ADS, the data found in the current investigation coincided with those of Patai et al., <sup>(22)</sup> who report that melena can be observed in 20 to 68 %, hematemesis in 14 to 30 %, hematochezia in 2 %.

Nivelo Román et al., <sup>(23)</sup> agree with the clinical presentation in the form of a mane. However, in other studies carried out by Jiménez Rojas <sup>(24)</sup>, hematemesis is considered the main manifestation; although both manifestations generally occur in the same patient.

The authors declare as a limitation of the study that it was not possible to provide more aspects or other data of interest because the medical records only showed each of the data presented in the research.

## **CONCLUSIONS**

A greater number of cases was observed after 60 years of age, with males predominating. The most common pathological history was peptic ulcer. The predisposing factor that occurred most frequently was coffee consumption. Most of the patients studied did not consume non-steroidal anti-inflammatory drugs. The most frequent form of presentation was the mane.

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## AUTHORSHIP CONTRIBUTION

**RKM:** conceptualization, research, methodology, writing of the original draft, review.

**YCDM:** conceptualization, data curation, resources, writing the original draft, review, validation and editing.

**SACC:** supervision and review.

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The authors declare that they have no conflicts of interest.

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