

Behavior of Patients with Low Digestive Bleeding Acute of Colorectal Etiology treated with Tranexamic Acid

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Abstract

Introduction: Lower gastrointestinal bleeding is frequently in the clinical practice, the satisfactory evaluation and management of which requires a disciplined and orderly approach. Diagnosis and management has evolved with the development of new technology and general treatments. This study was undertaken to analyze the use of tranexamic acid in the treatment of lower gastrointestinal hemorrhage.

Objective: Characterize the behavior of patients with lower gastrointestinal bleeding by colorectal etiology medicated with tranexamic acid in the department of coloproctology of Manuel Ascunce Domenech Hospital in the period between 2014 to 2016.

Method: A retrospective descriptive observational research was carried out in the period between 2014 to 2016. The population was constituted by the patients with lower gastrointestinal bleeding by colorectal etiology medicated with tranexamic acid in the department of coloproctology of Manuel Ascunce Domenech Hospital.

Results: Lower gastrointestinal bleeding was more frequent in male sex, white race and advanced age. The most important etiology was the diverticular disease of the colon. The re-bleeding, blood Transfusion, surgery and mortality was lower in the group with tranexamic acid treatment.

Conclusions: Tranexamic acid in the treatment of lower gastrointestinal bleeding by colorectal etiology reduce the risk of re-bleeding, blood transfusion, surgery and mortality.

Keywords: *Low Digestive Bleeding; Colorectal Etiology; Tranexamic Acid*

Introduction

The low digestive hemorrhage (HDB) is defined as the hemorrhage that has its origin in the digestive tract distal to the angle of Treitz. It is manifested in the form of Hematochezia or rectorragia, although sometimes it can be in the form of melenas [1]. This entity has a high rate of re-bleeding, transfusion needs, surgery and Mortality.

In the first half of the twentieth century the HBD ended in many cases with the death of the patient. It was considered the neoplastic lesions of colon, polyps and tumours, as the main causes, but from the decade of 50 this paper was Orgó to the colonic diverticulosis. Treatment in many of these cases was surgery, in which more or less broad resections of the segment of the colon believed to be affected were practiced. The results patients undergoing surgery were decompensated worshipping with high morbidity rates (83%) and mortality (60%) [1].

In 1954 the flexible endoscope was developed and the first complete colonoscopy was performed in Japan in 1965. Selective mesenteric angiography was also established as a diagnostic method to identify the exact bleeding point, which allowed better direction of surgery towards the colon segment in which the hemorrhage occurred and allowed to define the Angiodysplasia and Diverticula as a cause predominant [2,3].

In 1971, the selective embolization of the bleeding vessel was described by arteriography, becoming a less invasive therapeutic alternative than surgery [3].

It was from the years 80 when nuclear medicine and scintigraphy were developed. Endoscopy was started as a means of treatment with the use of sclerosis and Cauterization methods to control bleeding [4,5].

HDB has its origin in the colorectal area in 90% of cases, and in the small intestine only 10%. Causes vary with age. In children and young adults, the Meckel's diverticulum should always be considered. In adults and the elderly, anorectal Pathology, diverticula, polyps and tumours, ischemic colitis, infectious or inflammatory and angiodysplasia of Colon are the most communes [3,4] causes. Other causes, such as enteric ulcers by NSAIDs, Crohn's disease, jejunal Diverticula, aortoentérica fistula, hemobilia or pancreatic hemorrhage, are much more infrequencies [5].

From point D and sight of its severity, low gastrointestinal hemorrhage can range from the acute mass form to the blood loss cornices [6,7]. When the digestive tract bleeds it is a complication inherent to several diseases whose denominator common is a solution of continuity of the epithelium. It is also manifested as a complication in the severely ill and in critical condition in isolation or as part of the multiple organ dysfunction Syndrome [8].

The severity of this complication makes QUE take a group of measures with the patient aimed at achieving control of bleeding and avoid an important loss of blood that would lead to an imbalance hemodynamic, state of shock and possibly death. Your income is made in the units of surgery, intensive therapy, intermediates or gastroenterology departments enabled for such effects [9].

Regardless of the cause of the hemorrhage, the initial objective of the treatment is the resuscitation and the maintenance of the hemodynamic stability with replenishment of the volume and the correction of the anemia by blood transfusion. Subsequently, the treatment should be individualized in dependence of the cause, the severity and the evolution of the hemorrhage and of factors as the age and the comorbidity. In most cases the HDB is self-limiting and the conservative treatment is sufficient. However, up to 20% of the cases the hemorrhage is persistent or recurrent and it will be necessary the intervention therapeutics [10].

Although classically persistent hemorrhage is controlled by surgical resection, endoscopic and angiographic advances currently offer new therapeutics [11] options. Surgical treatment is generally reserved for Paci with persistent hemorrhage in which hemostasis has not been able to be achieved with other techniques and varies from segmental resection when the cause of bleeding is identified to the Colectomy subtotal when the site of sang redo [12] is not found.

Although there are no absolute criteria, the severity of this entity, determined by the persistence of hemorrhage, the hemodynamic impact and the high requirements of blood transfusion, is the main factor to establish the necessity of Emergency surgical treatment. However, other factors such as individual surgical risk for older age and co-morbidity also contribute to this decision [13].

At present worldwide the HDB is a reason for income hospitalities more and more frequent, in particular in elderly patients. Its annual incidence is estimated at approximately 33 cases per 100 000 inhabitants and represents 20% - 25% of all digestives [2] hemorrhages.

Despite the advances in material of drugs, minimally invasive treatments and the implementation of specialized care units in this type of disease developed in the last two decades, mortality is alta [14,15].

It has long been known that there is an activity fibrinolytic elevated at the site of gastrointestinal bleeding. For that reason medical researchers introduced antifibrinolytic agents such as tranexamic acid in the pharmacological treatment of the patient with SDB to try to impaired Nuir the re-bleeding, the needs of Transfusion, surgery and mortality [16].

Tranexamic acid is a synthetic derivative of the amino acid lysine that exerts its Antifibrinolytic action by a reversible blockade of the lysine binding site in the plasminogen molecule, which thus inhibits the interaction of Plasminogen and heavy chain plasmin with lysine residues from the surface of Fibrin [17-19].

Since 1973 studies were published on the use of aerodynamic tranex acid patients with upper gastrointestinal bleeding, however, the results are very heterogeneous. Errors in design and poor control of bias in these studies limit their validity externa [19-23].

Studies on its use in SDB are scarce worldwide, in our country studies of this type are not reported. A systematic review of controlled and randomized studies in surgical patients showed that the administration of tranexamic acid before or during Reduj surgery or the possibility of receiving blood transfusion in about one third of the patients [24]. More recently, the CRASH-2 study concluded that the use of tranexamic acid in polytraumatized patients reduced mortality from exsanguinating hemorrhage and total mortality without increasing the risk of thromboembolic [25] events.

Given these uncertainties, tranexamic acid is not routinely used in the treatment of the patient with SDB [24].

This work is aimed at characterizing the comp of patients with digestive bleeding low acute of colorectal etiology treated with tranexamic acid.

Method

Retrospective descriptive observational research was conducted with the aim of characterizing the behavior of patients with acute digestive bleeding of colorectal etiology treated with tranexamic acid in the Service of Coloproctology of the Hospital Manuel Ascunce Domenech in the period 2014 - 2016.

The population object of study or universe of this investigation was constituted by 160 patients WITH SDB acute of colorectal etiology, of which 67 received treatment with tranexamic acid and 93 that did not receive the medicine.

The information was obtained directly from the patient's medical records, which was captured in a database made in Microsoft Excel.

For the processing of the information, the spreadsheets of the Microsoft Excel Office pack were used, the data were represented in tables by means of absolute frequency and percentages.

Results

Of the patients studied in the group of 71 years and more predominated the highest number of cases with 91 patients (56.9%), followed by the group of 61-70 years with 34 patients (21.3%).

The lower GI hemorrhage was more frequent in male patients with 96 cases, this figure represents 60.0% of the patients studied.

White patients with 86 cases were predominant, representing 53.7% of the total number of patients.

The diverticulitis of the colon was the most common etiology with 83 cases, which represents 51.9% of the total number of patients studied. Second, there are tumors of anus, rectum and colon with 56 cases (35.0%).

The group treated with tranexamic acid 39 patients, which represent 58.2% of the total stopped Bleeding 1 day after the onset of treatment, myenteric that the group that did not receive treatment 44 patients (32.8%) He stopped bleeding after 2 days.

Of patients treated with tranexamic acid 4.5%, they had rebleeding, while the group that did not receive treatment 12.9% bled.

36 of the patients who received treatment with tranexamic acid (53.7%) They did not need to be transfused and no case needed more than 3 transfusions, while in the group that did not receive the drug, 16 patients were transfused (17.2%) and 3 cases (3.2%) They needed more than 3 transfusions.

In the group of patients who received treatment with tranexamic acid 1 case representing 1.5% required a surgical intervention, while in the group that did not receive drug 3 patients (3.2%) requires Eron surgical treatment.

Died 11 for 6.8 percent, we believe that the low percentages of general mortality are associated with the autolimited nature of this entity. Only two of the deceased belonged to the group that took treatment with tranexamic acid, which is related to the good response presented in front of medical treatment, while in the untreated group died 9 which represent 10.5%.

Discussion

In relation to the behavior of the acute low ages bleeding of colorectal etiology by age groups predominated in the group of 71 years and more predominated the largest number of cases, followed by the group of 61-70 years. We are of the criterion that this result is subordinated to the greater likelihood of suffering at these ages of pathologies related to low digestive bleeding, such as diverticular disease of the colon and neoplasms, which coincides with what It raises the consulted bibliography. Zuckerman GR, in the year 2000 published in his study on the management of occult low digestive bleeding that predominates in the elderly (20,0 - 30,0%) Above the rest of the individuals studied. Strate LL in his study "Lower GI bleeding epidemiology and diagnosis" of the 2005 showed that eSTA Pathology was more frequent in patients older than 60 Years. Also, Farrell J and Friedman L found in a study conducted in the year 2005 a range of ages between 63 and 77 years with greater incidence as age increases.

From Acuerdo to distribution according to SEX predominated HDB in male patients. We consider that the results found are related to the pathologies that most often appear in this sex at advanced ages of life as are the cases of colorectal cancer and diverticular disease followed by orificiales pathologies. This result coincides with the revised bibliography which states that this entity is more common in male patients. According to Miño G in his study "Severe low Gi hemorrhage of 1997 predominated in male sex. Also, Lin S in its publication "obscure gastrointestinal bleeding" of the 2015 reaffirms that this sex was the most frequent in the patients included in his study. Alonso Coello P in also control prevalence of this sex for 55.8% in his work "Other strategies for evaluating rectal bleeding in younger Patients "of the year 2005. In our country there are studies such as Dr. Manuel Lopez Perez of the year 2006 titled "Sangramientor digestive bajo. Study of a five-years" where it reflects that the male sex 58.0% of the patients studied.

According to the distribution of the race of the patients predominantly white patients. The bibliography consulted did not include studies that address the relationship between race and HDB.

When analyzing the etiologic behavior can be seen as pondered the diverticulitis of the colon as a causative entity of the HDB. Second, tumors of anus, rectum, and colon are found. We are of the criterion that these results are closely related to what was observed in previous tables where predominated HDB in elderly patients, in which they ponder the pathologies described above. This result coincides with existing studies that indicate a higher incidence of HDB related to increased prevalence of diverticulitis and tumors of anus, rectum and colon. Manuel López Pérez reflects as the most commonly found cause diverticulosis of the colon with a 18.7% followed by hemorrhoids with 14.0%. Strate LL it describes that the higher incidence of HDB in older adults is related to the increase in the prevalence of diverticular disease of colon and angiodysplasia with age. Helm J F in his study describes neoplastic polyps for 32.0% followed by bleeding hemorrhoids with 27.0%60. Other authors describe the angiodysplasia of the colon with an incidence of more than 50.0%.

In relation to the duration of the bleeding it can be seen that the group treated with tranexamic acid most stopped bleeding 1 day after the onset of treatment, while the group that did not receive treatment stopped bleeding to The two days. Taking into account that the tranexamic acid acts directly on the stability of the clot, at our discretion this seems to be the factor that decreases the time of bleeding in

the vascular lesion that occur in diverticulitis, neoplasms of Anus, Rectum and colon. We found no bibliographic to address the topic on the use of tranexamic acid in the treatment of HDB and its relation to bleeding time, but there are several studies that demonstrate the effectiveness in reducing bleeding time with Use of TR tranexamic acid the treatment of high digestive bleeding. It also exerts control over bleeding in the interventions of cardiovascular, orthopedic, gynecological and urological surgery.

With regard to the behavior of the rebleeding It can be seen that in the group that received treatment with tranexamic acid few patients had rebleeding, while the group that did not receive treatment a Percent more bled. We think this results subordinates that most patients treat two with tranexamic acid bled only one day, coupled with low GI bleeding being self-limited or resolved in 99 percent of the cases with Medical treatment. No bibliography was found addressing the topic on the use of tranexamic acid in the treatment of HDB and its relationship with there bleeding. We found studies that support the efficacy in the decrease of the same with the use of this medicine in the upper GI hemorrhage.

In relation to the need for transfusions in the patients treated with tranexamic acid, the majority needed to be transfused and no case needed more than 3 transfusions, while in the group that did not receive the drug was transfused one percent High and 3 cases needed more than 3 transfusions. Consider Amos that the need for transfusion on more than one occasion is directly related to the amount, time of duration of bleeding and rebleeding, in turn is observed inverse relationship with the use of tranexamic acid as This one limits the time of duration and rebleeding of the HDB. We found No bibliography to address the issue of the need for transfusion in patients with low gastrointestinal bleeding of colorectal etiology. In studies on the need for transfusion in HDB, Manuel López Pérez argues that 64% of patients did not need blood transfusions which quickly resolved with expectant treatment because they did not have a major hemorrhage and The bleeding stopped spontaneously. In Wright's casuístic, 75% of cases ceased without transfusion.

In analyzing the need for surgery we found that in the group of patients who received treatment with tranexamic acid 1 case required a surgical intervention, while in the group that did not receive drug 3 patients required treatment Surgical. It is the author's opinion that these low percentages of surgical interventions are given by the autolimited nature of the HDB and that the greater number of patients resolve with medical treatment, within which it is found in tranexamic acid. There are No studies that relate the need for surgery in the HDB when the patient is treated with tranexamic acid, but studies were found that talk about handstand surgery IN the HDB as Wright which informs in his series that Times up to 30.0% of their cases needed urgent surgical treatment. Other authors also report up to 30.0% of the need for surgical treatment as is the case with Compton C.

In relation to the state to the discharge of the patients only two of the deceased belonged to the group that led treatment with tranexamic acid which is related to the good answer that presents against the medical treatment, whereas in the group not Treaty passed away [9]. We found No studies that related the use of tranexamic acid in HDB and mortality. Das A poses that mortality is related to three independent factors: age, time of hospitalization and number D and comorbidities. The risk of death is ten times greater in patients hospitalized for other ailments and present HDB, compared with those who are hospitalized only by HDB [25-62].

Conclusions

In the present study was able to characterize the behavior patients with digestive bleeding low acute of colorectal etiology treated with tranexamic acid, it was determined that was more frequent in male patients of race White and elderly. It predominated the low digestive bleeding by amusing colitis of the colon. Rebleeding, number of transfusions, need for surgery and mortality was lower in the group receiving treatment with tranexamic acid.

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