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DIVERTICOLOSIS

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WHAT IS IT?

Diverticula can be called SAC-like tissue hernias affecting the mucosa and submucosa of the intestine wall and are more frequently in the left colon and sigmoid colon in particular. The number of the diverticula can vary depending on the case from a few up to hundreds but it is worth noting that their presence, regardless of the number, not necessarily accounts for the presence of diverticular disease, understood as a complication of diverticulosis and which manifests with symptoms specific enough.

HOW IT IS FREQUENT?

It was first noted that the colon diverticulosis is reported more in Western countries and which affects mainly the elderly. In detail, it is proved that the disease is equally distributed in both sexes, increases with age, starting from a 10% under the age of 40 years, to 25% in 60 years until 50% in subjects with over 80 years of age. The diverticulosis affects predominantly the left colon in 80% of the Western population, while in the Asian population, the same percentage, localizes in the right colon. An estimate of the frequency of diverticular disease observed in populations of some countries (United Kingdom, United States and Australia), in relation to the subjects' age and ethnicity, highlights ranging from 5 to 50% However, despite these data, the overall prevalence in the geographic areas listed is difficult to quantify because at least 85% of cases are asymptomatic.

NATURAL HISTORY

At an early stage the diverticulum may regress, but in a third of cases the diverticula number and extension to the colon is expected to increase over time. The appearance of this form depends on a number of conditions. The role of how the type of food can prevent or promote the disease seems increasingly central; in fact, in recent decades, there is a gradual increase of diverticulosis and its complicated forms perhaps because most industrialized population less and less use of dietary fiber. Conversely, in the countries of the African continent, the increased fiber consumption is correlated with significantly lower described cases.

A likely explanation for observed depends on whether the insufficient intake of fiber in the diet results in a variation of bacterial flora, and then the establishment of this sequence of events promotes the increase of pressure in the bowels, a decrease of local immune responses in the bowel wall and then the formation of diverticula. Regular physical activity appears to play a role of prevention as well as chronic intake of drugs type calcium-channel blockers for the treatment of other diseases, such as hypertension. For the same reason, instead, chronic intake of other anti-inflammatory drugs based on either steroid type or not steroids (known as Nsaids) and, moreover, opioid analgesics appears to favor the onset of complicated diverticulitis

The unfavorable clinical evolution of diverticulosis occurs when, inside of the diverticula, an inflammation. developsthe clinical picture usually takes the name of diverticulitis and expresses the presence of uncomplicated diverticular disease. This form occurs from 10 to 25% of cases of diverticulosis and after the first episode may reappear, despite therapy, in 25% within the first 5 years.

This event, which is called recurrence, is observed from 7to42% of cases. The risk of a further relapse after first admission is of 3%. At least 50% of these relapses occur within the first year and 90% within 5 years. The described complications have been reported in 5% of patients with diverticulosis, followed by 10 to 30 years. In the United Kingdom the incidence of perforation is 4 cases out of 100,000 people, and it consists, approximately,of 2000 cases per year.

Diverticular disease can complicate in different forms and involve urgent surgeries. Among the events there is bowel occlusion in the presence of intestinal luminal narrowing (stenosis) induced by inflammation present in the diverticula and surrounding in the intestinal lumen. In addition, the possibility of formation of abscesses, peri-diverticular of fistulas arising from the inflammatory process and spread inside the abdomen by communicating with other viscera, such as the small intestine and bladder. It should be noted the possibility of intestinal bleeding, conditioning sometimes acute anemia, due to the erosion of an arterial vessel inside the inflamed diverticulum and finally, we report the occurrence of bowel perforation resulting in peritonitis.

The abscess formation, above, represents an early stage of peritonitis that, not infrequently, can be checked with conservative therapy. Complicated cases have involved over the past 10-20 years a progressive increase in the number of hospital admissions and has affected non-negligible mortality rates especially in subjects with perforation.

This unfortunate eventuality does not appear linked to the disease only because the fact that occurs mostly in older people who have previously associated with numerous co-morbidities of cardio-respiratory or metabolic disorders that, in presence of diverticulitis, evolve unchecked and adversely alter the precarious emo-dynamic or metabolic compensation.

Fortunately, diverticular disease can be controlled with medical treatment in the majority of cases; even though can require patients to be referred at the hospital to monitor the resolution of the clinical picture.

Overall, this makes the clinical behavior of diverticular disease, if complicated, a severe clinical entity in relation to the sequelae (morbidity) which involves and the prolonged healing times, the possible relapses and, although less often, the significant mortality risk.

It is important for this that the specialist informs the patient as exhaustively as possible about disease behaviors and strategies to be adopted accordingly.

The social impact of the disease is very high to represent the fifth most important gastrointestinal disease.

WHAT ARE THE SYMPTOMS?

The main symptoms are

1. Abdominal colic pain, prevalent in the left abdomen
2. Fever
3. Vomiting
4. Intestinal obstruction in the form of block and less frequently diarrhea.
5. Rectal bleeding
6. In some cases, these symptoms are also associated with urinary disorders when for example there is a fistula with the urinary bladder in the form of issuing murky urine and air.

IS THERE A CURE?

The goal of therapy is to improve symptoms and to prevent recurrent attacks and complication of diverticulitis. These occur when medical therapy is effective in most cases in preventing the inflammatory reaction and to limit the progression of the disease.

If it is diagnosed an uncomplicated diverticulitis the primary help comes from a fiber-rich diet; an adequate and proportional water supply is a basic condition to allow faster evacuations of soft texture and thus

avoiding excessive pressures. A diet with a high concentration of fiber has been widely recommended and trade exists a long list of products, however the levels of evidence demonstrating a proven efficacy are not consistent at all. To remember however that in the event of a stenosis complication, which means the evolution of bowel inflammation, the diet with a high content of fibers must be absolutely avoided for more weeks and in that case, runny diets have to be recommended without removing the intake of meat and carbohydrates to ensure a sufficient caloric intake

Later when the inflammation will be improved because of diagnostic checks and based on clinical conditions, it will be possible, according to the physician, to introduce gradually in the diet the fibers in the form of mostly cooked vegetables and fruits.

From a pharmacological point of view a number of medications are commonly used: spasmolytic drugs, antibiotics, anti-inflammatory type mesalazine (this medication does not fall into the category of NSAIDs and Corticosteroids in the former described as favoring inflammation) and also probiotics (lactic acid bacteria) that have been used so varied, individually or associates. It should be recalled in that regard that the probiotic intake requires at most a week to start after discontinuation of antibiotic therapy, and possibly can repeat cycles for the same period in the following months. These products mentioned has not been proved more effective than a single drug than others have have or combination of multiple drugs. It should be noted that their use does not include, however, self-medication, favored by the current tendency to read up on the web, but requires the prescription from your doctor or specialist that will indicate the dosage and proper duration.

If the symptoms can suspect the presence of a complicated form of diverticulosis, the patient should immediately contact your physician and then be sent shortly thereafter to a colorectal surgeon specialist for a consultation. If the clinical situation evolve unfavorably and requires a shelter means that the stage of the disease is complicated. In this case, both are planned periods of hospital admission either to control the resolution of the acute event, or to plan surgeries where the clinical picture worsens.

The indication for surgery can be planned when frequent repetition of the episodes are recognized, despite medical therapy but especially if one of complications acutely rises. Among these ones, we remember the intestinal perforation of the diverticulum resulting in peritonitis, the bowel occlusion, the hemorrhage and the fistula. The types of procedures performed prevalently concern the resection of the affected bowel, followed by both direct suture of the healthy bowel ends but also it can regard intestinal tract resection with temporary deviation of stools (stoma). According to the international auditing firm of Cochrane, this stoma will be maintained for at least 180 days in order to warrant adequate cleaning of the abdomen cavity. Choosing a type of procedure with respect to another, it will depend on whether the interventions have been planned in election or urgency. In the first case, it is possible the direct intestinal suture without stoma, the second is not possible avoid stoma, however temporary, because the urgency setting as peritonitis prevents intestinal sutures can consolidate with a high probability of leak and therefore further bacterial contamination of the abdominal cavity can occur.

In recent years, laparoscopic surgery has progressively replaced the open surgery approach especially when elective surgery is carried out. Few indications for urgent surgery by laparoscopy are recommended except when there is a form where localized peritonitis describes the possibility of performing a diagnostic laparoscopy, washing and peritoneal cavity then place a drain in the surrounding side of the perforation.

The rationale of this procedure lies in the availability to plan the elective surgery afterwards avoiding the stoma in urgency. The results of many studies are very encouraging in this sense, however keep in mind that this approach should be the preserve of those centers in which the case-volume for these forms to be high and so permits.

In conclusion, following the aforementioned aspects, we reiterate that the usefulness of an accurate information about all clinical forms of diverticulosis is an essential tool for the prevention of complications, though it may not be enough to avoid them.

References

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