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Research Article

IS STRESS A RISK FACTOR FOR HEMORRHOIDS IN ELDERLY PATIENTS?

Dr. Hassan Abdulaziz M Hifni¹, Dr. Nasir Fahad Alqurashi², Dr. Ali Mohammed Alasiri²,
Dr. Batool Mohammed Haider², Dr. Shaima Fahad Alraddadi²,
Dr. Fahad Mohammad Fatini², Dr. Khalid Kheder Alfageeh², Dr. Odai Hatem Hejazi³,
Dr. Waad Obaidallah Alharbi³, Dr. Randa Mohssen Alalawi³, Dr. Abdullah Saeed
Alhashim³, Dr. Zain Zuhair Albukhari³

¹ Consultant General Surgeon in King Fahad General Hospital, Jeddah, KSA² Service Doctor, MD, KSA³ Medical intern, MBBS, KSA

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Abstract:

Background: The incidence of hemorrhoids requiring medical attention among the elderly has been increasing. This study aimed to determine stress as a risk factor for hemorrhoids among elderly patients.

Methods: A cross sectional study needs to be carried out to understand emotional stress as the risk factor for hemorrhoids. The study population is older people with conditions of hemorrhoids. The participants for this cross sectional study are older patients of age 45 to 65, with higher incidences of hemorrhoids. A total of 40 patients with hemorrhoids have been included in the study. The risk factors and the clinical symptoms related to the incidence of hemorrhoids were documented and analyzed.

Results: The study included 306 participants from elderly population. Participants reported suffering from hemorrhoid since once a year (n= 105, 34.3%) and once every more than one year (n= 105, 34.3%). There were 82 participants reported that there is a tissue coming out of the rectum at the time of bowel movement (26.8%). Among these participants, 43 of them mentioned that it goes back spontaneously while 39 of them had to push it back. The most frequent symptom among study participants was bleeding (n= 95, 31%). More than half of study participants were stressful before having hemorrhoids (n= 194, 63.4%). Furthermore, 172 participants think that they are facing digestive issues more often since they are stressed (56.2%). More than one third of study participants had signs of constipation prior to stressful feeling (n= 109, 35.6%).

Conclusion: The current study showed that participants were complaining from hemorrhoids since a year. Some of them reported tissue coming out from rectum. The most frequent symptom was bleeding and the most frequent symptom during stress was abdominal cramps. More than half of participants were stressed prior to the diagnosis of hemorrhoids. Larger cohort studies are encouraged to confirm the current observation.

Corresponding author:**Hassan Abdulaziz M Hifni,**

Consultant General Surgeon in King Fahad General Hospital, Jeddah, KSA

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INTRODUCTOIN:

Distal displacements of hemorrhoid cushions are the medical term for what we commonly call hemorrhoids. They are believed to result from a weakening of the connective tissue in that area, a protrusion of the hemorrhoidal tissues, and a distension of the arteriovenous anastomoses or dilatation of the veins in the hemorrhoidal venous plexus [1]. There are two different kinds of hemorrhoids: external and internal. Causes of increased pressure in the bottom section of the rectum include intestinal straining, prolonged sitting, being overweight or pregnant, lifting heavy objects on a regular basis, and eating a low-fiber diet [2]. The purpose of this research is to determine whether stress contributes to Hemorrhoids in the elderly.

There are a number of potential side effects of having hemorrhoids, including suffocation, anemia, prolapse, blood clots, and infection. Between 39% and 52% of individuals may be affected [1]. Bowel habits, cigarette use, nutrition, constipation, diarrhea, persistent straining at the time of defecation, pregnancy, and a lack of physical activity are only some of the risk factors that have been documented by a small number of studies [2]. It has been shown in research that there are various health concerns related with stress, such as obesity, cardiovascular illnesses, very little is known about its function in developing hemorrhoids [3-5].

Bleeding, soiling, pruritus ani, and discomfort are among complications that may arise from hemorrhoids, which are often asymptomatic on their own. Hemorrhoid risk factors are little explored. Hemorrhoidal mucus discharge may contribute to post-bowel movement feelings of incomplete evacuation of the rectum [2]. The quality of life may be drastically diminished as a result. In the event that stress is shown to contribute to hemorrhoids, pharmacological or non-pharmacological methods of stress relief may be explored in addition to the normal therapy for hemorrhoids. Therefore, the results of this investigation are important [6-7].

Everybody has a stressful existence. The elderly population is at risk because of the many hardships they must endure. Life issues, getting older, and co-occurring disorders all increase their vulnerability to stress. Stress may also exacerbate existing health problems in the elderly. However, no studies have ever connected stress with hemorrhoid. Hemorrhoids are not directly caused by stress, although it may aggravate preexisting risk factors.

Hemorrhoidectomy, the therapy for hemorrhoid, is becoming more common as the number of elderly persons who have bleeding varices increases. Old age might be a contraindication to surgery in certain scenarios. There is less data on the potential for complications during hemorrhoidectomy in the older population. Hemorrhoid risk factors have been studied mostly in young people [8-10]. Therefore, it is recommended that this study be conducted to fill the void in the literature and offer proof of the connection between stress and hemorrhoid. This study aimed to determine the role of stress as a risk factor for hemorrhoids.

METHODS:

A cross sectional study needs to be carried out to understand emotional stress as the risk factor for hemorrhoids. Cross sectional study is suitable for this study as they are conducted relatively faster and inexpensive and is able to give information about the prevalence of the exposure [11].

The study population is older people with conditions of hemorrhoids. The participants for this cross sectional study are older patients of age 45 to 65, with higher incidences of hemorrhoids. A total of 306 patients with hemorrhoids have been included in the study. The risk factors and the clinical symptoms related to the incidence of hemorrhoids were documented and analyzed. The purpose and the expected outcomes are informed beforehand, to the hospital admin.

The study tool used in this study is a questionnaire containing closed ended questions. The question consisted of 15 questions. The questions were constructed in English and free form any medical jargon so that it is easier to understand. Closed ended questions was used. A questionnaire was suitable as it aids in collecting a large amount of data within limited timing [12].

The effect of stress factors on hemorrhoids was understood by using a questionnaire for the selected patients. Each of the patients used the self-reported questionnaire. The answers written in the questionnaire would form the basis of descriptive analysis.

A descriptive statistics was done on the basis of the collected data. Pie-charts are derived from the data collected. These can be done in the MS excels. These percentages can be helpful to understand the

percentage of people with hemorrhoids suffering from stressful situations. The descriptive data analysis was performed.

Before conducting this cross sectional study, ethics approval should be taken from the ethics committee. Permission should be taken from the hospital admin along with a debriefing letter containing details of the experiment. All collected data should be preserved properly and should not be duplicated for other studies [13].

RESULTS:

The study included 306 participants from elderly population. Participants reported suffering from hemorrhoid since once a year (n= 105, 34.3%) and once every more than one year (n= 105, 34.3%). Figure 1 shows the frequency of suffering from hemorrhoids.

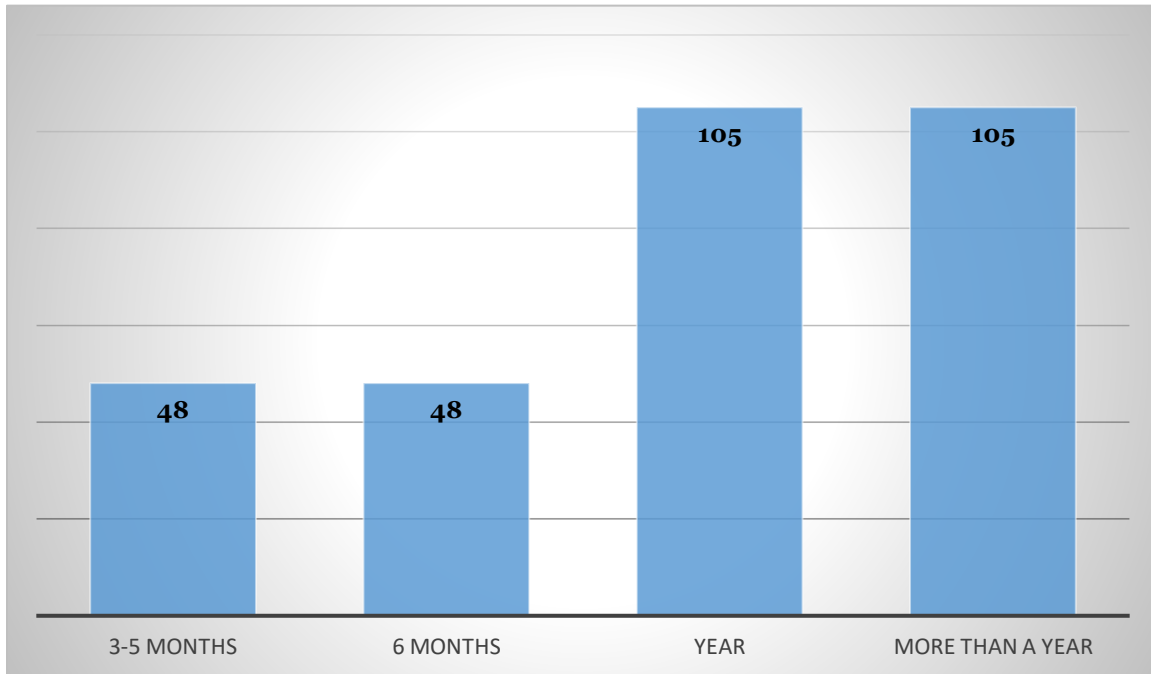


Figure 1: Duration of suffering from hemorrhoids

There were 82 participants reported that there is a tissue coming out of the rectum at the time of bowel movement (26.8%). Among these participants, 43 of them mentioned that it goes back spontaneously while 39 of them had to push it back.

The most frequent symptom among study participants was bleeding (n= 95, 31%) other symptoms are provided in figure 2.

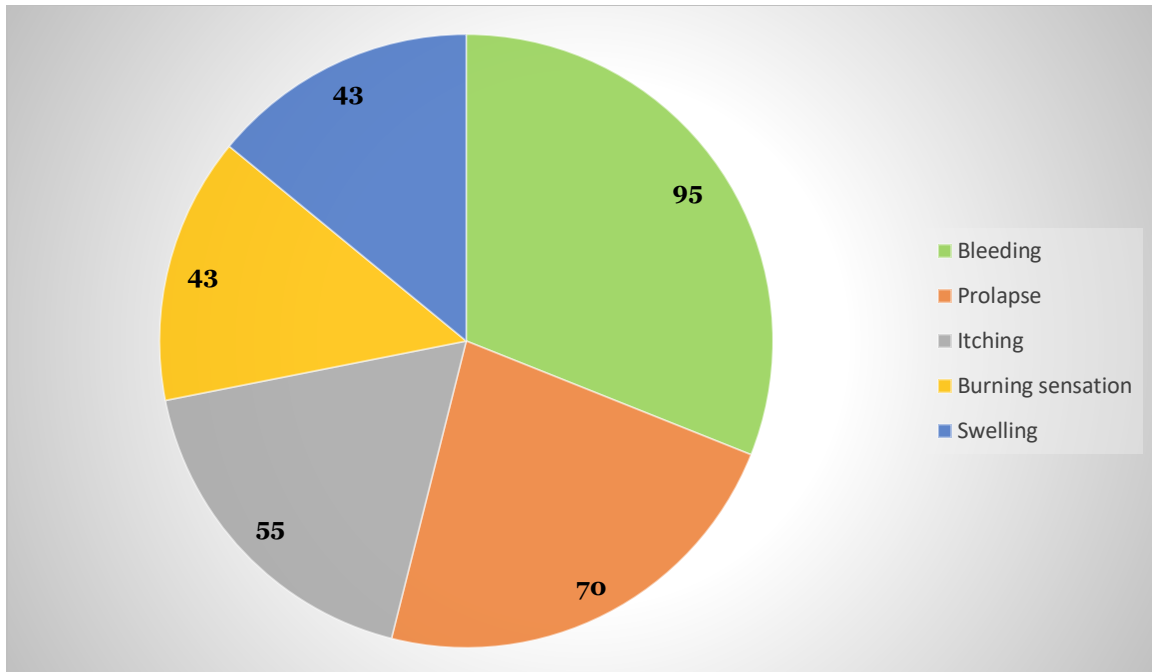


Figure 2: Frequency of symptoms among study participants

Most of participants are keeping themselves hydrated (n= 214, 69.9%). On the other hand, 92 participants don't keep themselves hydrated (30.1%). Third of participants had never strained during their bowel movement (n= 102, 33.3%).

Table 1 shows participants responses to some questionnaire items.

Item	Response			
	Never	Sometimes	Often	Always
In the last 2 months how often have you strained during bowel movement?	102 33.3%	90 29.4%	66 21.6%	48 15.7%
How often have you been upset with this health condition?	104 34%	68 22.2%	79 25.8%	55 18%
In the last month how often have you felt that you are too stressed out and are trying hard to handle problems?	99 32.4%	79 25.8%	67 21.9%	61 19.9%
Did your stress affect your food habits?	91 29.7%	75 24.5%	73 23.9%	67 21.9%

More than half of study participants were stressful before having hemorrhoids (n= 194, 63.4%). Furthermore, 172 participants think that they are facing digestive issues more often since they are stressed (56.2%). More than one third

of study participants had signs of constipation prior to stressful feeling (n= 109, 35.6%). The most encountered symptom during stress was abdominal cramps (n= 114, 37.3%). Other symptoms are presented in figure 3.

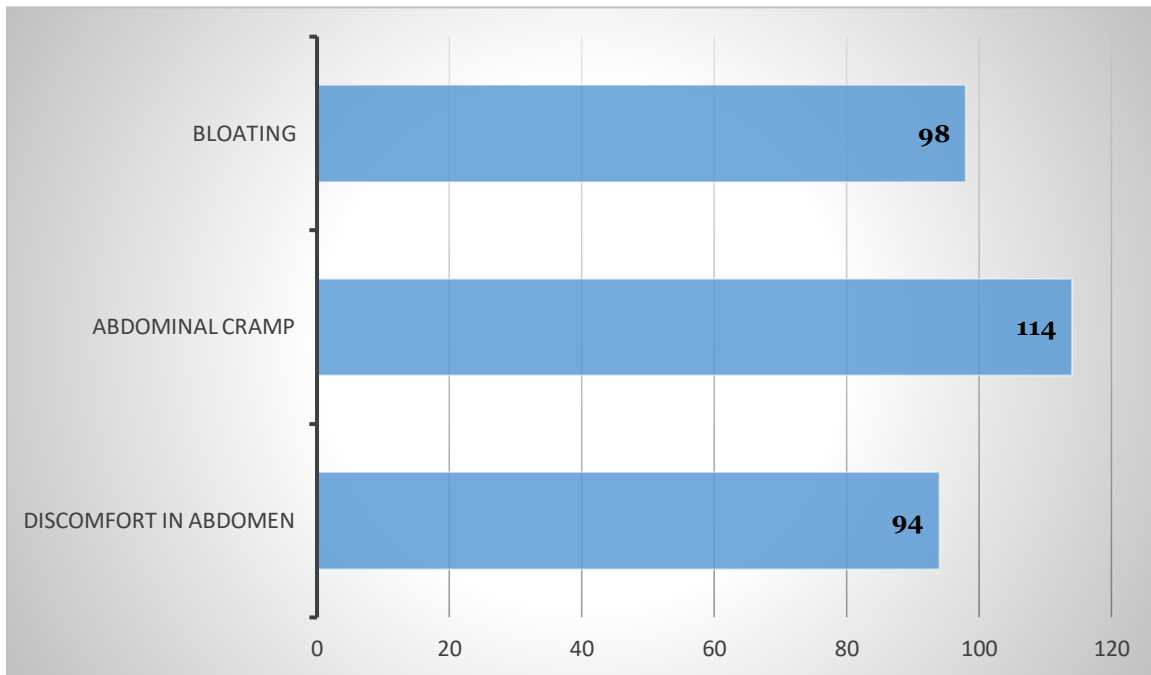


Figure 3: Frequency of symptoms among study participants during stress

The duration of seeking treatment for hemorrhoids varied among study participants according to the duration of disease. However, most of them were seeking treatment for 6 months (n= 194, 63.4%).

DISCUSSION:

For the purpose of this study, researchers assessed stress as a risk factor for hemorrhoids in elderly patients. Some other researchers compared the demographics and biochemical profiles of elderly patients with and without hemorrhoids to determine whether or not hemorrhoidectomy is safe and effective for this population [14]. They found that elderly patients with hemorrhoids were more likely to be female and to have higher AST levels, lower albumin levels, lower ChE and Plt levels (all of which point to impaired liver function), and lower eGFR and hemoglobin levels (suggesting impairment of kidney function) [14]. According to their findings [14], age alone is not a predictor of worse outcomes after surgery [14]. Goligher classification grade 4 and a high NLR were shown to be risk factors for surgical complications among the patients with hemorrhoids in their research [14].

Stress may worsen gastrointestinal symptoms, including bloating, gas, and cramping, all of which can aggravate hemorrhoids. If the sphincter muscles have

contracted owing to constipation, the rectum may feel pressure. The strain on your hemorrhoids may cause

inflammation. Higher rates of sadness and anxiety are reported by those with irritable bowel syndrome who also suffer from constipation. Mental stress has been shown to have an effect on the gut-brain axis, which connects the digestive system to the brain [15]. Functional abdominal pain and irritable bowel syndrome have been connected to this condition. Major depression, anxiety, poor physical health, and poor oral hygiene are all associated to chronic constipation [16]. Constipation is more common among patients who have experienced family violence or hostility related to family punishment, according to studies by Coronel and Silva [17]. It has been shown, while not widely reported, that the number of times a person has to use the toilet when under stress is directly proportional to their level of anxiety. Whenever we feel helpless in the face of adversity, we tend to bottle up our emotions of hopelessness and anxiety [17].

Older patients exhibit special difficulties due to their distinct physiological, pharmacologic, psychological, and social characteristics, which distinguish them from younger patients [18,19]. Comorbidities such as hypertension, diabetes, respiratory illness, cardiovascular disease, renal disease, and malnutrition are more common among the elderly [4]. This increased morbidity and mortality in the elderly, making them a high-risk population for surgery [20]. Careful preoperative diagnosis, risk assessment, effective surgical technique, and anesthetic management are essential for enhancing the quality of surgical treatment in the elderly [18]. However, it was found that no difference in the incidence of postoperative complications between the old and non-elderly patients, despite the fact that elderly patients had higher comorbidities [14]. In the senior population, recurrence rates were very low. These findings may suggest that screening surgical patients and enhancing surgical technique and perioperative care might better protect patients' quality of life after surgery [14].

The pain score documented the level of discomfort felt by the patient after surgery. There was a significant decrease in postoperative discomfort in this trial [21]. The senior population, in particular, had a dramatic decrease in pain. Because of the need to pull and extend in different directions with a stalk anoscope at the beginning of surgery, it is not always possible to perform a clean excision of the primary hemorrhoid and a ligation of the accessory hemorrhoid separately. The excision should be roughly half as wide as the hemorrhoid [14]. Patients with hemorrhoids have an irregular rhythm of contraction of the internal anal sphincter, and they need more pressure to constrict the anus than a healthy person would [22]. Due to the abnormalities of the sphincter, which is linked with hemorrhoid, preserving the sphincter muscle while exfoliating the hemorrhoidal tissue is related with postoperative pain alleviation [14].

Patients with hemorrhoids who have a Goligher classification of Grade 4 and/or high NLR levels are at increased risk for complications, according to multivariate analysis [14]. Hemorrhoids of Grade IV are more likely to develop problems, as documented earlier [23]. When performing an emergency procedure on an inmate, a circumferential incision is often required to avoid the complications of radial incision stenosis or to dispose of any residual disease. In contrast, new research has linked NLR to a worse prognosis and increased disease severity in a wide range of inflammatory illnesses [24-26]. As a new

inflammatory marker [25], neutrophilia is a result of neutrophils' crucial function in controlling the inflammatory response. Increased levels of corticosteroids are a common contributing factor to lymphopenia in times of acute stress [27]. Hemorrhoid patients experiencing severe inflammation need to be monitored closely for the development of problems.

CONCLUSION:

The current study showed that participants were complaining from hemorrhoids since a year. Some of them reported tissue coming out from rectum. The most frequent symptom was bleeding and the most frequent symptom during stress was abdominal cramps. More than half of participants were stressed prior to the diagnosis of hemorrhoids. Larger cohort studies are encouraged to confirm the current observation.

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