

RELATIONSHIP BETWEEN HAEMORRHOIDS AND CORONARY HEART DISEASE- A REVIEW

¹Sakshi Kaushik, ²Karan, ³Akshita Kasana

ⁱB.A.M.S., M.Sc. (Food and Nutrition), M.B.A. (Healthcare Management), P.G.D.M.L.E., P.G.Diploma in Kshara Karma, ⁱⁱB.A.M.S., M.H.A., P.G. Diploma in Kshara Karma, ⁱⁱⁱB.Sc.(Hons.) Zoology, M.Sc. (Food and Nutrition), B.Ed.

1. Traditional Knowledge of Digital Library

1. Council of Scientific and Industrial Research - New Delhi, India

Abstract: Haemorrhoids and Coronary heart disease share several common risk factors and causes associated with each other as both of them are concerned with the vasculature of the body, former being related to the rectum and anal canal and latter being associated with the heart. This article discusses exhaustively the relationship between occurrence of coronary heart disease in subjects of haemorrhoids.

Index Terms - Piles, Haemorrhoid, Coronary heart disease

INTRODUCTION

Of all the diseases that plague humans, hemorrhoids are undoubtedly the most common. There is no exception to hemorrhoids, regardless of race or gender. Although it is difficult to determine the exact condition, it is safe to say that many people of both genders suffer from hemorrhoids. In addition, many people have hemorrhoids without symptoms and are diagnosed by rectal examination. Another information is that the probability of hemorrhoids in people over the age of 50 is more than 40%.

HAEMORRHOID

According to popular belief, the terms "haemorrhoid" and "hemorrhoid" are used interchangeably, but they have grammatically different meanings. The word haemorrhoid is derived from the Greek adjective haemorrhoid and consists of two words (Haima=blood, rhoos=flow), thus giving its meaning that is easily accepted by the public. On the other hand, the word "pile" is the root of the Latin word "pila", meaning "heap"; and can be used for many types of groups. "But this can be better understood in the words of John of Arderne in 1370; the people call it haemorrhoids, the nobles call it hemorrhoids, the French call it figs; it matters how long it takes to be able to do it? - John of Adena, 1306-1370. The first English surgeon." Causes of hemorrhoids can be divided into two main groups:

A. <u>Idiopathic causes</u>- It is difficult to determine the obvious cause of hemorrhoids (varicose veins). However, there are many factors that can be identified/listed that are very important in the formation of hemorrhoids.

IJNRD2401258

- (1) <u>Hereditary</u>: It causes some disorders in the structure of the blood vessels, for example, muscle weakness in the walls of the blood vessels, abnormal blood vessels that give the anal plexus, forming hemorrhoids, the diseases appear more in many people or the whole family will prove it.
- (2) <u>Constipation</u>: If a constipated person exerts himself, there will be a blockage in the chest hemorrhoid and and cause hemorrhoids to form.
- (3) Diarrhoea & Dysentery: Similar effects may occur when tenesmus is severe.
- (4) <u>Faulty habits of defaecation</u>: It causes some disorders in the structure of the blood vessels, for example, muscle weakness in the walls of the blood vessels, abnormal blood vessels that give the anal plexus, forming hemorrhoids, the diseases appear more in many people or the whole family will prove it.
- (5) <u>Dietary Habits</u>: Removing fibre from the diet can disrupt stool in the intestines, which can lead to increased constipation and eventually hemorrhoids.
- 6) <u>Anatomical factors</u>: The best roots in the nerves are still not supported in the rectum (submucosal connective tissue). These vessels affect the muscles and cause narrowing, resulting in hemorrhoids. It is important to note that these containers do not have valves.
- **B. Secondary Causes:** The situations encountered in this section are the presence of organic obstructions in the portal circulation due to venous return from the superior hemorrhoidal vein.
- (1) <u>Portal Obstruction</u>: Portal vein occlusion is said to be the cause of hemorrhoids. Hemorrhoidal disease causes portal vein obstruction because the suprahemorrhoidal vein is part of the portal venous system. This may be due to strong tension in the hemorrhoidal plexus, which prevents the hemorrhoidal plexus from draining into the drainage system.
- (2) <u>Pregnancy and Abdominal tumours</u>: Normal uterine pressure in the uterus increases gradually and continuously. The iliac artery usually gives rise to an increase in all its tributaries and eventually becomes associated with the abdominal (internal iliac) middle and lower hemorrhoidal vein tributaries. In addition, increased hemorrhoidal venous pressure, directly or indirectly, can affect the entire hemorrhoidal plexus and ultimately become the source of hemorrhoidal growth.

CORONARY HEART DISEASE

Coronary heart disease is a type of heart disease in which the arteries in the heart do not deliver enough oxygenated blood to the heart. It is sometimes called coronary artery disease or ischemic heart disease. The causes of heart disease depend on its type. Coronary artery disease is often caused by cholesterol, a waxy substance that builds up in the arteries and forms plaque. This plaque buildup can partially or completely block blood flow in the heart's main arteries. Coronary microvascular disease occurs when small blood vessels in the heart become damaged. The symptoms of coronary heart disease (CHD) are many, including stable angina, unstable angina, and acute myocardial infarction. Heart diseases are a heavy burden for the world due to their high mortality rate.

In a study designed to address the relationship between hemorrhoids and heart disease risk, people with hemorrhoids had a higher risk of heart disease than those without. For those without hemorrhoids, the odds were 1.27 times higher after adjusting for potential confounders. higher.

Study found 27% increased risk of heart disease in hemorrhoid patients after treating complications. Factors that cause the development of heart disease are more common in hemorrhoid patients.

Many theories can explain the risk of heart disease in people with hemorrhoids.

- 1. Hemorrhoids may develop more in people who consume foods high in fat, as the large intestine may cause pressure on the stomach.
- 2. Hemorrhoids often occur in obese people due to the strength of the anus muscles.
- **3**. Finally, lack of physical exercise can lead to the development of hemorrhoids due to abdominal bruising. All of this is related to the atherosclerotic process that leads to the emergence of heart disease.

CONCLUSION

In summary, it was observed that patients with hemorrhoids had a 1.27-fold higher risk of CHD compared with those without hemorrhoids after adjusting for the potential confounding factors. The relationship between occurrence CHD and haemorrhoids is due to various common risk factors and causes.

REFERENCES

- Association between hemorrhoid and risk of coronary heart disease
 A nationwide population-based cohort study
 Shih-Sheng Chang, MD,a,b Fung-Chang Sung, PhD, MPH,c,d Cheng-Li Lin, MS,c and Wei-Syun Hu, MD, PhDa,e.*
- 2. Sun Z, Migaly J. Review of hemorrhoid disease: presentation and management. Clin Colon Rectal Surg 2016;29:22–9. [PMC free article] [PubMed] [Google Scholar]
- 3. Everhart JE, Ruhl CE. Burden of digestive diseases in the United States part I: overall and upper gastrointestinal diseases. Gastroenterology 2009;136:376–86. [PubMed] [Google Scholar]
- 4. Riss S, Weiser FA, Schwameis K, et al. The prevalence of hemorrhoids in adults. Int J Colorectal Dis 2012;27:215–20. [PubMed] [Google Scholar]
- 5. Fihn SD, Blankenship JC, Alexander KP, et al. 2014 ACC/AHA/AATS/PCNA/SCAI/STS focused update of the guideline for the diagnosis and management of patients with stable ischemic heart disease: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines, and the American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons. Circulation 2014;130:1749–67. [PubMed] [Google Scholar]
- 6. Amsterdam EA, Wenger NK, Brindis RG, et al. 2014 AHA/ACC guideline for the management of patients with non-ST-elevation acute coronary syndromes: executive summary: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. Circulation 2014;130:2354–94. [PubMed] [Google Scholar]
- 7. O'Gara PT, Kushner FG, Ascheim DD, et al. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. Circulation 2013;127:e362–425. [PubMed] [Google Scholar]
- 8. Khot UN, Khot MB, Bajzer CT, et al. Prevalence of conventional risk factors in patients with coronary heart disease. JAMA 2003;290:898–904. [PubMed] [Google Scholar]
- 9. Wu SH, Chuang E, Chuang TY, et al. A nationwide population-based cohort study of migraine and organic-psychogenic erectile dysfunction. Medicine (Baltimore) 2016;95:e3065. [PMC free article] [PubMed] [Google Scholar]
- 10. Lin JC, Lin CS, Hsu CW, et al. Association between Parkinson's disease and inflammatory bowel disease: a Nationwide Taiwanese Retrospective Cohort Study. Inflamm Bowel Dis 2016;22:1049–55. [PubMed] [Google Scholar]
- 11. National Health Research Institutes. National Health Insurance Research Database. Available: http://nhird.nhri.org.tw/en/index.html. Accessed April 14, 2015. [Google Scholar]
- 12. Peery AF, Sandler RS, Galanko JA, et al. Risk factors for hemorrhoids on screening colonoscopy. PLoS ONE 2015;10:e0139100. [PMC free article] [PubMed] [Google Scholar]
- 13. Lee JH, Kim HE, Kang JH, et al. Factors associated with hemorrhoids in Korean adults: Korean National Health and Nutrition Examination Survey. Korean J Fam Med 2014;35:227–36. [PMC free article] [PubMed] [Google Scholar]
- 14. Lohsiriwat V. Hemorrhoids: from basic pathophysiology to clinical management. World J Gastroenterol 2012;18:2009–17. [PMC free article] [PubMed] [Google Scholar]
- 15. Sneider EB, Maykel JA. Diagnosis and management of symptomatic hemorrhoids. Surg Clin North Am 2010;90:17–32. [PubMed] [Google Scholar]
- 16. Alonso-Coello P, Mills E, Heels-Ansdell D, et al. Fiber for the treatment of hemorrhoids complications: a systematic review and meta-analysis. Am J Gastroenterol 2006;101:181–8. [PubMed] [Google Scholar]
- 17. Johanson JF, Sonnenberg A. The prevalence of hemorrhoids and chronic constipation. An epidemiologic study. Gastroenterology 1990;98:380–6. [PubMed] [Google Scholar]
- 18. Mandviwala T, Khalid U, Deswal A. Obesity and cardiovascular disease: a risk factor or a risk marker? Curr Atheroscler Rep 2016;18:21. [PubMed] [Google Scholar]
- 19. Bonow RO, Smaha LA, Smith SC, Jr, et al. World Heart Day 2002: the international burden of cardiovascular disease: responding to the emerging global epidemic. Circulation 2002;106:1602–5. [PubMed] [Google Scholar]

- 20. Mehta JL, Saldeen TG, Rand K. Interactive role of infection, inflammation and traditional risk factors in atherosclerosis and coronary artery disease. J Am Coll Cardiol 1998;31:1217–25. [PubMed] [Google Scholar]
- 21. Wilson PW, D'Agostino RB, Levy D, et al. Prediction of coronary heart disease using risk factor categories. Circulation 1998;97:1837–47. [PubMed] [Google Scholar]

