



FACTORS IN ASSOCIATION WITH HAEMARROIDS

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ABSTRACT Haemorrhoids (hemorrhoid), also known as piles, is swelling in the anal canal or around the anus with an enlarged blood vessel inside it. In the literature there is a dearth of exact data on the prevalence of haemorrhoids. In this study we have considered various studies concerning with different factors, those are associated with the disease. In the last section of the study discussion is made for further future perspectives.

Discussion: Nowadays, changing life style and eating patterns are imposing their impact on health. As it is well known that socio-economic and cultural status plays a key role in incidence of any disease. Different cultures or regional groups may produce varying health risks, food consumption research should be taken into consideration, as there exists a lack of understanding in this regard specially in the desert region of India.

KEYWORDS : Haemarroids, Piles**Introduction**

Hemorrhoids are common disorders of the Anus and Rectum. More than half of men and women aged 50 years and older will develop hemorrhoid symptoms during their lifetime (Bailey HR, 2004). The Merck Manual defined hemorrhoids as “Varicosities of the veins of the hemorrhoidal plexus, often complicated by inflammation, thrombosis, and bleeding” (Bailey HR, 2004; Berkow R,1992). In this study we have contemplated copious factors associated with haemorrhoid viz. advancing age ,sex, education, income, marital status, body mass index, Race/ethnicity, occupational activity, physical activity, alcohol intake, past history of hemorrhoid, , past history of anal fissure, personal history of peri-anal diseases, spicy diet, constipation, accidental leakage of solid, liquid or mucus, loose or watery stools, more than 21 stools per week, multiple chronic illnesses, urinary incontinence, poor self-rated health, use of dry toilet paper combined with wet cleaning methods after defaecation, use of bathtub, use of the shower, genital cleaning before sleep, straining during delivery, birthweight of newborn, high grain fiber intake, rectal bleeding.

In one of the study, 1033 patients (542 males) and 1028 controls (504 males) were considered. In this study hemorrhoidal disease patients were observed younger (47 ± 14.5 vs. 52 ± 16.5 yrs; $P \ll 0.0001$) and the sex ratio was not reported different from controls. Past history of hemorrhoidal symptoms, age $\ll 50$ yrs, past history of anal fissure, occupational activity (OR 5.17; 1.95; 1.72; 1.43; $P \ll 0.1$) and spicy diet, constipation, physical activity, alcohol intake (OR 4.95; 3.93; 2.79; 1.99; $P \ll 0.1$) were resulted as significant factors associated with hemorrhoidal disease(François P et al,2005).

One of the studies considered data from The National Health and Nutrition Examination Survey (NHANES) for the civilian non-institutionalized U.S. population. Participants selected in the study, were 2,229 women and 2,079 men aged 20 or older. Study defined Fecal incontinence (FI) as accidental leakage of solid, liquid or mucus at least once in the preceding month. After statistical analysis, revealed computed prevalence of fecal incontinence (FI) in non-institutionalized U.S. adults was 8.3% (CI 7.1, 9.5) and consists of liquid stool in 6.2%, solid stool in 1.6%, and mucus in 3.1%. Prevalence was found observed similar in women (8.9%) and men (7.7%). Study also found an increase with age from 2.6% in 20-29 year-olds up to 15.3% in participants aged 70 and over. Race/ethnicity, education, income, or marital status after adjusting for age were not found significantly associated with FI. Independent risk factors in women reported were advancing age, loose or watery stools, more than 21 stools per week, multiple chronic illnesses, and urinary incontinence, whereas in men age, loose or watery stools, poor self-rated health, and urinary incontinence were the independent risk factors(William E. et al,2009).

Ole G. et al evaluated 72 patients with TEH and 76 individuals without TEH between 2004 to 2005. Age of 46 years or younger, use of excessive physical effort, and use of dry toilet paper combined with wet cleaning methods after defaecation were found reported associated with a significantly higher risk of developing thrombosed external haemorrhoids (TEH), whereas use of bathtub, use of the shower, and genital cleaning before sleep at least once a week were

triggered with a significantly lower risk of developing THE(Ole G. et al,2005)

One of the prospective study, conducted between 2008 and 2009, included 976 patients. Of these, 380 patients (38.93%) were analyzed as suffering from hemorrhoids. In the study considered, one hundred seventy patients (44.74%) complained about symptoms associated with hemorrhoids, whereas 210 patients (55.26%) did not report any symptoms. A significant effect on the occurrence of hemorrhoids and body mass index (BMI) with $p = 0.0391$ and $p = 0.0282$, respectively was observed(Riss S et al,2012).

We came across a prospective observational cohort study aiming the incidence and risk factors of haemorrhoids and fissures during pregnancy and after childbirth. This study of 280 pregnant women resulted that 123 (43.9%) women developed peri-anal disease: 1.6% in the first trimester, 61% during the third trimester, 34.1% after delivery and 3.3% 1 month after delivery; 114 (40.7%) women were observed diagnosed with haemorrhoids, seven (2.5%) with haemorrhoids and anal fissure and two (0.71%) with anal fissure. Personal history of peri-anal diseases (odds ratio [OR] 11.93; 95% confidence interval [95% CI] 2.18–65.30), constipation (OR 18.98; 95% CI 7.13–50.54), straining during delivery for more than 20 minutes (OR 29.75; 95% CI 4.00–221.23) and birthweight of newborn >3800 g (OR 17.99; 95% CI 3.29–98.49) were reported significant predictors of haemorrhoids and anal fissures during pregnancy and perinatal period(Poskus T,2014).

In one of the cross sectional studies, 2,813 participants were included and 1074 patients with hemorrhoids were recorded. This study disclosed an association of increased prevalence of hemorrhoids (OR 1.43, 95% CI 1.11, 1.86) with constipation. High grain fiber intake was found associated with a reduced risk (OR for quartile 4 versus quartile 1 = 0.78, 95% CI 0.62, 0.98). Sedentary behavior was found associated with a reduced risk (OR 0.80, 95% CI 0.65–0.98), but physical activity (OR 0.83, 95% CI 0.66–1.03) was not found associated. Being overweight and obese were not observed associated with the presence of hemorrhoids (OR 0.89, 95% CI 0.72–1.09 and OR 0.86, 95% CI 0.70–1.06)(Peery AF,2015).

In a cross sectional, descriptive and prospective study; epidemiological, clinical and anoscopic of haemorrhoidal disease were studied covering a period from January 2014 to April 2014. This study considered 182 patients including 57 cases of haemorrhoidal disease. In this study, prevalence of the disease was 31.3% having a sex ratio 1.10. The average age reported was 43 years with extremes of 18 and 88 years. Anal events were found dominated by rectal bleeding (54.4%) with a predominance of internal haemorrhoidal disease (87.7%)(Sehonou, J.,2015).

In one another study the Taiwanese Longitudinal Health Insurance Database 2000 was considered to evaluate the association between hemorrhoid and risk of incident peripheral artery occlusive disease (PAOD). Study compared the incident PAOD risk between the hemorrhoid and the non-hemorrhoid cohorts. The mean follow-up period reported was 6.82 (standard deviation [SD], 3.22) and 6.70 (SD, 3.23) years in the hemorrhoid and non-hemorrhoid cohorts,

respectively. The cumulative incidence of PAOD was observed significantly higher for the hemorrhoid cohort than for the non-hemorrhoid cohort (log-rank test: $p < 0.001$) (Wei-Syun H, 2017).

References

1. Bailey HR: Innovations for age-old problem: hemorrhoids in the female patient. *Female Patient*. 2004; 29:17-23.
2. Berkow R (ed). *The Merck Manual of Diagnosis and Therapy*. 16th ed. Rahway, NJ: Merck; 1992: 855-56.
3. François Pigot, Laurent Siproudhis, François-André Allaert. Risk factors associated with hemorrhoidal symptoms in specialized consultation. *Gastroentérologie Clinique et Biologique* 2005; 29(12):1270-74
4. William E. Whitehead, Lori Borrud, Patricia S. Goode, Susan Meikle, Elizabeth R. Mueller, Ashok Tuteja, Alison Weidner, Milena Weinstein, and Wen Ye. Fecal Incontinence in U.S. Adults: Epidemiology and Risk Factors. *Gastroenterology* 2009; 137(2): 512–17.e2.
5. Ole Gebbensleben, York Hilger and Henning Rohde. Aetiology of thrombosed external haemorrhoids: a questionnaire study. *BMC Research Notes* 2009; 2:216
6. Riss S, Weiser FA, Schwameis K, Riss T, Mittlböck M, Steiner G, Stift A. The prevalence of hemorrhoids in adults. *International Journal of Colorectal Disease* 2012 ;27(2):215-20
7. Poskus T, Buzinskiene D, Drasutiene G, Samalavicius NE, Barkus A, Barisauskiene A, Tutkuvieni J, Sakalauskaite I, Drasutis J, Jasulaitis A, Jakaitiene A. Haemorrhoids and anal fissures during pregnancy and after childbirth: a prospective cohort study. *BJOG* 2014;121:1666–72
8. Peery AF, Sandler RS, Galanko JA, Bresalier RS, Figueiredo JC, Ahnen DJ, et al. (2015) Risk Factors for Hemorrhoids on Screening Colonoscopy. *PLoS ONE*;2015;10(9): e0139100. <https://doi.org/10.1371/journal.pone.0139100>
9. Sehonou, J., Wanvoegbe, F.A., Kpossou, A.R., Agbodande, K.A., Dah-Bolinon, R., Azon-Kouanou, A., Zannou, M. and Houngbe, F. Haemorrhoidal Disease in Cotonou: Epidemiological, Clinical and Anoscopic Aspects. *Open Journal of Gastroenterology* 2015; 5: 77-82.
10. Wei-Syun Hu, Cheng-Li Lin. Hemorrhoid is associated with increased risk of peripheral artery occlusive disease: A nationwide cohort study. *Journal of Epidemiology xxx* 2017; 1-4