Scholars Academic Journal of Biosciences
Abbreviated Key Title: Sch Acad J Biosci
ISSN 2347-9515 (Print) | ISSN 2321-6883 (Online)
Journal homepage: https://www.saspublishers.com/journal/sajb/home

OPEN ACCESS

Efficacy of Troxerutin, Achillea, Ruscus and Psyllium on Hemorrhoidal Disease

Alp Yildiz[1*], Engin Kucukdiler[2], Ilkin Ismayilov[3], Mahir Nasirov[3], Aybala Yildiz[1]

[1]Yenimahalle Training and Research Hospital, Department of General Surgery ankara, Turkey
[2]Aydin State Hospital, Department of General Surgery ankara, Turkey
[3]Gence International Hospital, Department of General Surgery ankara, Turkey

Original Research Article

***Corresponding author**
Alp Yildiz

Article History
Received: 08.12.2018
Accepted: 18.12.2018
Published: 10.01.2019

DOI: 10.36347/sajb.2019.v07i01.001

Abstract: ***Introduction:*** Hemorrhoid continues to be a serious problem, particularly in developed and developing countries, in which no-fibre diets are common. In this study, the aim was to compare the efficacy of conventional venotonic-venoprotector agents (VVA) with an agent, which was the combination of troxerutin, ruscus, achillea, and psyllium (TRAP). ***Patients and methods:*** A total of 94 patients with Grade 3 hemorrhoid were included in this study. Group-1: Patients receiving TRAP alone (46). Group-2: Patients receiving VVA treatment (48). Subjective evaluations by the patients were performed on the follow-up visit in the third week after the treatment, consisting of an evaluation of the quality of life and symptom improvement. The data were analysed with the Chi-square and student t-tests, using the SPSS 17 program. ***Results:*** There was a statistically significant difference between Group 1 and Group 2, in regards to the patient requirements for adjunctive medications ($p<0.01$). No significant differences were found in the quality of life and symptom improvement between the groups after giving adjuvant treatment in Group 2 ($p=0.2457$ for both parameters). However, the improvement specifically in the symptom of "anal pruritus" was significantly different in favour of Group 1 compared to Group 2 ($p <0.01$). ***Discussion:*** Vasoprotective agents have been used safely in the treatment of hemorrhoid for decades. However, the dietary habits and the lifestyle in modern life, especially when combined with low-fibre diet and chronic constipation unresponsive to the treatment. The results of this study showed that the TRAP combination had a similar effect to that of the constrictive vasoprotective agents in the resolution of the haemorrhoid bulges, however, it demonstrated a superiority to the conventional vasoactive agents in the prevention of chronic constipation. We are of the opinion that the TRAP combination is a highly promising agent in hemorrhoid and larger-scale studies are required.

Keywords: Hemorrhoid, venotonic agents, troxerutin, ruscus, achillea, psyllium, chronic constipation

INTRODUCTION

Vasoprotective agents have been used safely in the treatment of hemorrhoid for decades, contributing significantly to the treatment by reducing the need for surgery. However, the dietary habits and the lifestyle in modern life, especially when combined with low-fibre diet and a sedentary living, facilitate the development of chronic constipation unresponsive to the treatment, complicating the treatment of hemorrhoid or leading to recurrences even in the patients who underwent surgery previously[1]. With this study we investigate the efficacy of the combination drug contains troxerutin, ruscus, achillea, and psyllium(TRAP) comparing with conventional venotonic-venoprotector agents (VVA).

PATIENTS AND METHODS

A total of 94 patients with Grade 3 hemorrhoid were included in this study. All patients were consulted with a dietitian due to constipation and informed about the required lifestyle changes in detail. At the follow-up visit a week later, a purgative.

Agent was prescribed in addition to the previous treatment if the constipation complaint did not improve.

Group-1: Patients receiving TRAP alone (46)
Group-2: Patients receiving VVA treatment (48)

A follow-up visit was scheduled for the patients in both groups in order to perform a rectoscopy

in the third week after the treatment. In order to perform an objective assessment, scoring was performed based on the grading of the prolapsed haemorrhoids, which were all Grade 3 at baseline. A regression of a Grade 3 haemorrhoid to Grade 2 was scored 1 while a regression from Grade 3 to Grade 1 was scored 2. Subjective evaluations by the patients were performed on the follow-up visit in the third week after the treatment, consisting of an evaluation of the quality of life and symptom improvement (The evaluations were performed by self-assessment. The improvements in the quality of life and symptom resolution were scored on a 10-point scale). The data were analysed with the Chi-square and student t-tests, using the SPSS 17 program.

RESULTS

No patients needed to receive a purgative agent in Group 1, however, 31 (64.5%) patients in Group 2 received adjunctive medications due to the persistence of the constipation symptoms. There was a statistically significant difference between Group 1 and Group 2, in regards to the patient requirements for adjunctive medications ($p<0.01$).

No significant differences were found in the quality of life and symptom improvement between the groups after giving adjuvant treatment in Group 2 ($p=0.2457$ for both parameters).

However, the improvement specifically in the symptom of "anal pruritus" was significantly different in favour of Group 1 compared to Group 2 ($p <0.01$).

DISCUSSION

Symptoms related to hemorrhoids are very common in the Western hemisphere and other industrialized societies. Although published estimates of prevalence are varied[1,2] it represents one of the most common medical and surgical disease processes encountered in the United States, resulting in >2.2-million outpatient evaluations per year[3]. A large number of diverse symptoms may be, correctly or incorrectly, attributed to hemorrhoids by both patients and referring physicians. As a result, it is important to identify symptomatic hemorrhoids as the underlying source of the anorectal symptom and to have a clear understanding of the evaluation and management of this disease process[4].

Risk factors for hemorrhoids remain poorly studied. Hemorrhoids are hypothesized to result from deterioration of anchoring connective tissue, prolapse of hemorrhoidal tissue, distention of the hemorrhoidal arteriovenous anastomoses or dilation of the veins of the internal hemorrhoidal venous plexus.Factors commonly assumed to increase the risk of developing hemorrhoids include inadequate dietary fiber, constipation, diarrhea, chronic straining during defecation, pregnancy and a sedentary lifestyle[5,6].

To learn more about potential risk factors for hemorrhoids, we considered multiple possible risk factors including bowel habits, diet, tobacco use, NSAID use, aspirin use, physical activity or lack thereof, body mass index, and obstetrical history.It is hypothesized that a low fiber diet, constipation, straining with defecation, diarrhea, sedentary behavior, obesity, multigravida and live births would be associated with an increased risk of hemorrhoids on colonoscopy[5]. Constipation is one of the most common digestive problems inNorth America, with an estimated prevalence between 2% and 27%. For many patients, constipation-associated symptoms are chronic and last for several weeks to several years.The cost of evaluating and treating constipation is significant. Each year in the United States alone, approximately 2.5 million people consult a physician for constipation, and approximately 92,000 are hospitalized. Based on an analysis of 3 national surveys in 2001, the annual costs associated with medical care for constipation total $235 million [7].

Minimizing constipation, and the prolonged straining that may be associated, is one of the main purposes of lifestyle measures and medical treatment for symptomatic hemorrhoids.The initial approach aims to increase the amount of water and fiber in the diet, or to introduce a laxative. Constipation may be due to low fluid intake, but the effectiveness of increasing fluid intake as a treatment for constipation remains unknown. Dietary fiber intake has been positively associated with increases in bowel movement frequency and fecal mass among individuals with occasional or mild constipation. Other types of laxatives (stimulant laxatives,osmotic agents, and fecal softeners) have proved effective for the treatment of constipation in randomized trials but the poor methodology of these studiesweakens inferences about treatment effect.Several small clinical trials have evaluated the effect of fiber compared with placebo in patients with hemorrhoids. Authors of narrative reviews and clinical practice guidelines have found the evidence inconclusive, but have still recommended use of fiber due to its safety and low cost. To establish the strength of the available evidence, we conducted a systematic review of the impact of laxatives on a wide range of symptoms in patients with symptomatic hemorrhoids[8].

Extract of Ruscus aculeatus is effective in increasing venous tone because of its anti-inflammatory and astringent properties. The active biochemical constituent is proposed to be the saponin glycoside ruscogenin.Herbalists of various cultures have historically used Ruscus aculeatus for the treatment of varicose veins and hemorrhoids. There is an increasing body of scientific literature to support these traditional folk medicine uses[9].

The Achillea species are important for their uses in the chemical and pharmaceutical purposes, and

traditional and folk medicines. From ethnobotanical point of view, they have been recommended as effective tonic, sedative, diuretic and carminative remedies and extensively prescribed for the treatment of stomach ache, inflammation, gastrointestinal, hemorrhoid, hay fever, and wound healing in indigenous medicines. They are also known as effective remedies that promote breast-feedings and regulate women menstruation. This review presents an overview on the ethnopharmacological knowledge of the Achillea genus and provides a deeper insight into medicinal and pharmaceutical applications of different Achillea species[3].

Plantago psyllium L. (Plantaginaceae), Psyllium, is widely used in powdered form throughout Turkey and the world, in the treatment of chronic constipation, hemorrhoids and for losing weight due to its laxative property. It is also effective in reducing cholesterol and serum glucose levels[10].

Vasoprotective agents have been used safely in the treatment of hemorrhoid for decades, contributing significantly to the treatment by reducing the need for surgery. However, the dietary habits and the lifestyle in modern life, especially when combined with low-fibre diet and a sedentary living, facilitate the development of chronic constipation unresponsive to the treatment, complicating the treatment of hemorrhoid or leading to recurrences even in the patients who underwent surgery previously. The results of this study showed that the TRAP combination had a similar effect to that of the constrictive vasoprotective agents in the resolution of the haemorrhoid bulges; however, it demonstrated superiority to the conventional vasoactive agents in the prevention of chronic constipation. We are of the opinion that the TRAP combination is a highly promising agent in hemorrhoid and larger-scale studies are required.

REFERENCES

1. Perera N, Liolitsa D, Iype S, Croxford A, Yassin M, Lang P, Ukaegbu O, van Issum C. Phlebotonics for haemorrhoids. Cochrane Database of Systematic Reviews. 2012(8).
2. Lohsiriwat V. Treatment of hemorrhoids: A coloproctologist's view. World Journal of Gastroenterology: WJG. 2015 Aug 21;21(31):9245.
3. Mohammadhosseini M, Sarker SD, Akbarzadeh A. Chemical composition of the essential oils and extracts of Achillea species and their biological activities: A review. Journal of ethnopharmacology. 2017 Mar 6;199:257-315.
4. Rivadeneira DE, Steele SR, Ternent C, Chalasani S, Buie WD, Rafferty JL, Standards Practice Task Force of The American Society of Colon and Rectal Surgeons. Practice parameters for the management of hemorrhoids (revised 2010). Diseases of the Colon & Rectum. 2011 Sep 1;54(9):1059-64.
5. Peery AF, Sandler RS, Galanko JA, Bresalier RS, Figueiredo JC, Ahnen DJ, Barry EL, Baron JA. Risk factors for hemorrhoids on screening colonoscopy. PloS one. 2015 Sep 25;10(9):e0139100.
6. Johanson JF, Sonnenberg A. Constipation is not a risk factor for hemorrhoids: a case-control study of potential etiological agents. American Journal of Gastroenterology. 1994 Nov 1;89(11):1981-6.
7. Arora G, Mannalithara A, Mithal A, Triadafilopoulos G, Singh G. Concurrent conditions in patients with chronic constipation: a population–based study. PloS one. 2012 Oct 12;7(10):e42910.
8. Alonso-Coello P, Mills ED, Heels-Ansdell D, López-Yarto M, Zhou Q, Johanson JF, Guyatt G. Fiber for the treatment of hemorrhoids complications: a systematic review and meta-analysis. The American journal of gastroenterology. 2006 Jan;101(1):181.
9. MacKay, D. (2001). Hemorrhoids and varicose veins: a review of treatment options. *Alternative medicine review*, *6*(2), 126-140.
10. Tanker N, Koyuncu M, Coşkun M. Farmasötik Botanik. 2. Ankara: Ankara Üniversitesi Basımevi. 2004.