

# Flavonoid Containing Medicinal Plants Applied in Iranian Traditional Medicine for Hemorrhoid Treatment

Ghaderi P\*, Ahmadi R, and Akbarzadeh T

**Abstract**— The use of steroid drugs and flavonoids is important in modern medicine to treat hemorrhoids. The aim of this study was to introduce flavonoid containing plants used in Iranian traditional medicines for treatment of hemorrhoids. This descriptive - analysis study reviewed the medicinal plants used in Iranian traditional medicine for treatment of hemorrhoids. The books and papers on the hemorrhoids treatment methods of traditional medicine were reviewed. Chemical components of most important plants used in Iranian traditional medicine for treatment of hemorrhoids were also reviewed. Among the plants, *Terminalia chebula*, *Cuscuta epithymum*, *Melilotus off*, *Capparis spinosa*, *Juniperus Sabina*, *Quercus ilex*, *Prunus domestica*, *Cydonia oblonga*, *Portulaca oleracea* and *Ephorbia resinifera* were more important flavonoid containing plants used in Iranian traditional medicine for treatment of hemorrhoids partly due to their effective components. With respect to the anti-bleeding effects of flavonoids and anti-inflammatory effects of steroids the effects of herbal extracts used in Iranian traditional medicines for treatment of hemorrhoids are justifiable. However, more pharmacological and clinical research are required in this regard.

**Keywords**— Hemorrhoid, Traditional medicine, Steroids, Flavonoid.

## I. INTRODUCTION

**H**EMORRHOIDS are a very common anorectal disorder defined as the symptomatic enlargement and abnormally downward displacement of anal cushions. They become pathological or piles when swollen or inflamed. The symptoms of pathological hemorrhoids depend on the type present. Internal hemorrhoids usually present with painless rectal bleeding while external hemorrhoids may produce few symptoms or if thrombosed significant pain and swelling in the area of the anus. Initial treatment for mild to moderate disease consists of increasing fiber intake, oral fluids to maintain hydration, NSAIDs to help with the pain, and rest. A number of minor procedures may be performed if symptoms are severe or do not improve with conservative management. Surgery is reserved for those who fail to improve following these measures [1]-[3]. In most

Ghaderi Parvin (\*corresponding author) is with Persian Medicine and Pharmacy Research Center, Faculty of Traditional Medicine, Tehran University of Medical Sciences, Tehran, Iran. (e-mail: parghaderi2012@yahoo.com)

Rahim Ahmadi (PhD) is with the Department of Physiology, Faculty of Basic Sciences, Islamic Azad University, Hamedan Branch, Hamedan, Iran. (e-mail: Rahahmadi2012@yahoo.com).

Tahmineh Akbarzadeh (PhD) is with the Department of Medicinal Chemistry, Faculty of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran. (e-mail: akbarzad@tums.ac.ir).

instances, hemorrhoids are treated conservatively, using many methods such as lifestyle modification, fiber supplement, suppository-delivered anti-inflammatory drugs, and administration of venotonic drugs [4].

Today, modern as well as traditional drugs are being increasingly used in all grades of symptomatic haemorrhoids. These drugs (oral and local) are used as a part of conservative management or as an adjuvant to invasive outpatient procedures. Flavonoids, in the new formulation of micronised purified flavonoid fraction (MPFF) or as part of the ancient traditional medicine derivative of the Ginkgo tree, are used for relief of acute symptoms (for control of bleeding and re-bleeding in all grades of haemorrhoids) [5]. Hemorrhoidal disease is a common problem which is usually not managed properly with pharmacologic interventions and will eventually require surgery. However, there are many medicinal plants that were successfully used for the treatment of hemorrhoids in the traditional and folk medicine of different countries [6]. In main aim of this study was to introduce flavonoid herbal extracts used in Iranian traditional medicines for treatment of hemorrhoids.

## II. MATERIAL AND METHODS

This descriptive - analysis study reviewed the medicinal plants used in Iranian traditional medicine for treatment of hemorrhoids. The books and papers on the hemorrhoids treatment methods of traditional medicine were reviewed. Chemical components of most important plants used in Iranian traditional medicine for treatment of hemorrhoids were examined and the data were statistically analyzed using chi-square test.

## III. RESULTS

Flavonoid containing medicinal plants were listed in table I.

TABLE I  
FLAVONOID CONTAINING MEDICINAL PLANTS USED IN TRADITIONAL MEDICINE FOR TREATMENT OF HEMORRHOIDS

Plant	Chemical Components
<i>Terminalia chebula</i>	Flavonoids, Chebulinic acid, Albumin and ...

		<p><i>Cydonia oblonga</i></p> 	<p>Flavonoids, and ...</p>
<p><i>Cuscuta epithimum</i></p> 	<p>Flavonoids, Steroids, Saponin and ....</p>	<p><i>Portulaca oleracea</i></p> 	<p>Flavonoids, and ...</p>
<p><i>Melilotus off</i></p> 	<p>Flavonoids, Phenolic acid, Coumarins and ....</p>	<p><i>Ephorbia resinifera</i></p> 	<p>Flavonoids, Steroids, and ...</p>
<p><i>Capparis spinosa</i></p> 	<p>Flavonoids, and ....</p>	<p style="text-align: center;">IV. DISCUSSION</p> <p>Our results indicated that there are considerable flavonoid containing plants used in Iranian traditional medicine for treatment of hemorrhoids. There are reports indicating the using of these plants and other plants in cultures other than Iranian culture [7]-[12]. The reports also indicate that favonoids, saponin and steroids in plant extract has a pivotal role as anti-inflammatory agent in the treatment of hemorrhoids [6]. The studies also show that bioactive flavonoids from different plant sources have anti-inflammatory effects [13], [14]. There are also other components alongside the flovonids, such as saponins, showing anti-inflammatory effects [15] .</p> <p style="text-align: center;">V. CONCLUSION</p> <p>We have shown that there are several important flavaonoids containing plants used in Iranian traditional medicine for treatment of hemorrhoids .</p> <p style="text-align: center;">ACKNOWLEDGMENT</p> <p>This research has been done with the support of Persian Medicine and Pharmacy Research Center, Faculty of Traditional Medicine, Tehran University of Medical Sciences, Tehran, Iran. We appreciate all who helped us to exert the present study.</p>	
<p><i>Juniperus Sabina</i></p> 	<p>Flavonoids, Saponin and ....</p>		
<p><i>Quercus ilex</i></p> 	<p>Flavonoids, Steroids, and ....</p>		
<p><i>Prunus domestica</i></p> 	<p>Flavonoids, Steroids, and ...</p>		

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