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A Review: Some Plants Used for Hemorrhoids in Turkey Traditional Medicine

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Abstract

The origin of the word hemorrhoid comes from Latin. It is formed by combining the words hem (blood) and roos (flow). Hippocrates is probably the first to use the name of hemorrhoids. Famous doctor revealed that hemorrhoidal bleeding comes from anal veins. The history of hemorrhoid disease draws a simultaneous appearance with the history of humanity. Anal pathologies have found a wide place in papyri written between 1700-1500 BC. Topical treatment is recommended for all anal diseases without specifying the type in the so-called Edwin Smith papyri. In these papiruses it has been reported that the slurry prepared by boiling ground acacia leaves in these papyrus is placed in the anus and a linen pad is placed on the patient, and the patient will recover quickly. When the studies on ethnobotany in Turkey are examined, it will be seen that the people use some plants to treat hemorrhoids with traditional methods. This paper consists of 231 plant taxa which are used for treatment hemorrhoids in the Turkey ethnobotany or traditional medicine. It is expected that this study will contribute to other studies on the subject.

Keywords: Ethnobotany, hemorrhoids, plant, traditional medicine, Turkey.

1. Introduction

Hemorrhoids, which manifests itself with symptoms such as itching, bleeding and discomfort in the anal region, is a health problem that also affects the quality of life. Hemorrhoids is a disease known as "Mayasıl" or "Basur" among the people. It is a problem that occurs with the enlargement and growth of the veins in the makat region. Bundling of the veins in the anus area can also identify hemorrhoids. In advanced stages of hemorrhoids, the enlarged veins may emerge from the anus by forming varicose veins. Hemorrhoids is a problem seen in at least half of the population. Until the 18th century, there were not enough publications on hemorrhoids in the literature. Since the 18th century, an intensification has been observed in the publications on hemorrhoids. We see that 19th century surgeons have different approaches in the treatment of hemorrhoids (Ellesmore, Windsor, 2001; Parks, 1955). Ligation, which is the most frequently used method in the treatment of hemorrhoids, was first reported by Joseph Mathews at the end of the 19th century (Mathews, 1899). We also see some non-surgical applications in the 19th century. In the following years, Lord, who found the anal canal resting pressure to be high in people with hemorrhoids, explained her belief that this pressure was the main cause of hemorrhoids disease (Lord, 1969). Another method brought to the agenda for the treatment of hemorrhoids in the second half of the 20th century is cryotherapy (Lewis, 1972). Coagulation with infrared rays, which is another non-surgical treatment used in the treatment of hemorrhoid disease, was first described by Neiger in 1979 (Neiger, 1979).

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The first publication on laser therapy in hemorrhoid disease was made by Sankar and Joffe in 1987 (Sankar, Joffe, 1987). Another method that has been used in the treatment of hemorrhoid disease in recent years is hemorrhoid artery ligation. There is not enough literature yet for the results of hemorrhoidal artery ligation, which was first applied by Morinaga et al. in 1995 (Morinaga et al., 1995). According to studies, more than 3/4 of people complain of hemorrhoids at some point in their life, about half of 50 years old require treatment for this reason. The prevalence of hemorrhoid disease in the population is between 4-36 %, and it is more common in men (Janicke, Pundt, 1996).

In this review study, it is aimed to contribute to the literature on the subject by presenting some plants used in the treatment of hemorrhoids with traditional methods by the local people in Turkey. This paper considers not only the value of an integrative traditional approach to treatments for hemorrhoids, but also understanding phytotherapeutic mechanisms, traditional application methods and hemorrhoids inducing properties of plant taxa.

2. Materials and methods

This research was carried out by thorough searching of different ethnobotany research articles of Turkey. As a result of this study, 231 taxa were determined from the literature survey and showed in Table 1.

3. Results

Table 1 was arranged by specifying the family of the plant, the local name, the part of the plant used and the way of use, based on the region where the plants are used.

Table 1. Some plants used for hemorrhoids in Turkey ethnobotany

Family	Taxa	Local Name	Used Part	Usage
Amaranthaceae	*Amaranthus retroflexus*	Selmik, Hoşguran, Alimo	Leaf, brach, Aboveground	Infusion (Kilic, Bagci, 2013; Polat et al., 2015)
Anacardiaceae	*Rhus coriaria*	Sumak, Sımak, Tetir, Tetre, Mavru, Debbağ sumağı, Derici sumağı	Fruit, Stem, Leaf	Decoction (Cakilcioglu et al., 2011; Kaval, 2011; Olgun, 2019)
Anacardiaceae	*Cotinus coggyria*	Tetre, Tetra, Tetere, Tetra otu	Leaf	Infusion or Decoction (Tuzlacı et al., 2010; Kilic, Bagci, 2013; Kültür, 2007; Ecevit, Özhatay, 2006)
Anacardiaceae	*Pistacia terebinthus* subsp. *terebinthus*	Kokorağaç, Menengiç ağacı	Leaf	Decoction (Kültür, 2007)
Apiaceae	*Eryngium campestre*	Şeker dikeni	Root, branch	Fresh roots are eaten (Sarper et al., 2009; Sarper et al., 2009), Decoction (Bulut et al., 2014)
Apiaceae	*Eryngium billardieri*	Boğa dikeni, Hıyarok, Kerbes, Boğa dikeni, Esek dikeni, Tusi, Turi	Root	Decoction (Özgen et al., 2012; Bulut et al., 2014; Kaval, 2011)

Apiaceae	*Caucalis platycarpus*	Kara pıtrak	Aboveground	Decoction (Kargıoğlu et al., 2010; Bulut et al., 2014)
Apiaceae	*Ferula orientalis*	Heliz-Kevk, Çağsır, Kırkor, Helizan, Kasni, Çaksır	Root	Decoction (Kilic, Bagci, 2013; Sezik et al., 2001)
Apiaceae	*Opopanax hispidus*	Unspecified	Leaf	Grind and eaten (Bulut et al., 2014)
Apiaceae	*Malabaila secacul*	Unspecified	Leaf	Grind and eaten (Bulut et al., 2014)
Apiaceae	*Daucus carota*	Kokar ot, Mayasıl otu	Aboveground	Infusion (Bulut, Tuzlacı, 2015; Bulut et al., 2014)
Apiaceae	*Heracleum sphondylium* subsp. *ternatum*	Devesil	Root	Unspecified (Özhatay et al., 2006)
Apiaceae	*Heracleum platytaenium*	Ayıkulağı, Ayıgöbeği, Tavşan otu, Su pıtırağı	Leaf	Infusion (Sargin et al., 2015)
Apiaceae	*Prangos uechtritzii*	Unspecified	Aboveground	It is boiled in vinegar and rubbed into the area (Bulut et al., 2014)
Apiaceae	*Petroselinum crispum*	Maydanoz	Leaf, Root, Aboveground	Decoction (Çakılcıoğlu,Türkoğlu, 2013; Bulut et al., 2014)
Apiaceae	*Anethum graveolens*	Dere otu	Abovegroun, Root	Decoction (Güneş, Özhatay,2011; Bulut et al., 2014)
Apocynaceae	*Nerium oleander*	Zakkum	Flower	It is applied to the area with butter (Güzel et al., 2015)
Araceae	*Arum* sp.	Yılan bıçağı, Tirşik pancarı, Yılan purçalağı	Fruit	Swallow 3 times a day with water (Akaydın et al., 2013)
Araceae	*Arum balansanum*	Kabarcık, Gabarcık, Kabarcık otu	Fruit	Puree is eaten (Sargın, 2015)
Araceae	*Arum dioscoridis*	Kabarcık	Fruit	Puree is eaten (Sargın, 2015) Infusion (Güzel et al., 2015)
Araceae	*Dracunculus vulgaris*	Yılan bıçağı, Yılan kamçısı, Yılan kılıcı, Yılan burçağı,	Tuber, Fruit, Aboveground, Seed	Decoction (Tuzlacı, et al., 2001; Bulut, Tuzlacı, 2015; Sargin et al., 2015; Akyol, Altan, 2013) It is kneaded with honey (Ugurlu, Secmen, 2008), Eaten (Polat, Satıl, 2012)
		Yılan yastığı, Yılancık, Yılan	Flower, Tuber, Fruit	Decoction. It is cut into slices and

Araceae	*Arum italicum*	kılıcı, Tırşik, Yılan soğanı, Yılan zehiri		applied to the area (Ecevit, Özhatay, 2006) Hungry swallowed (Kızılarslan, Özhatay, 2012) Unspecified (Özhatay et al., 2006)
Araceae	*Arum maculatum*	Yılan otu, Yılan yastığı, Yılan burçağı	Leaf, Tuber, Fruit	Infusion (Tetik et al., 2013) Decoction (Kültür, 2007) Swallowed (Tuzlacı, 2004) Unspecified (Özhatay et al., 2006)
Araceae	*Arum detruncatum* subsp. *detruncatum*	Yılan ekmeği, Yılan yastığı	Bulb	Eaten (Özdemir, Alpınar, 2015)
Araceae	*Arum elongatum* subsp. *detruncatum*	Gabarcık	Fruit, Tuber, oil	Eaten (Bağcı et al., 2016) Decoction+ honey (Tuzlacı et al., 2001)
Araceae	*Arum elongatum* subsp. *elongatum*	Basur otu	Root, Tuber	It is consumed in the form of capsules by grinding (Arı et al., 2015)
Araceae	*Arum rupicola*	Kabarcık, Kabarcık otu, Gabarcık otu,	Fruit	Puree is eaten (Sargın, 2015)
Asparagaceae	*Hyacinthus orientalis* subps. *chionophilus*	Unspecified	Leaf	Unspecified (Demirci et al., 2017)
Aspleniaceae	*Asplenium adiantum-nigrum*	Mayasıl otu	Leaf	Infusion (Bulut, Tuzlacı, 2015)
Asteraceae	*Achillea wilhelmsii*	Civanperçemi	Aboveground Flower, Leaf	Infusion or Decoction (Altundag, Ozturk, 2011), (Cakilcioglu et al., 2011; Tetik et al., 2013; Bağcı et al., 2016; Ertuğ, 2002)
Asteraceae	*Achillea aleppica* var. *zederbaueri*	Yılan çiçeği	Flower, Leaf	It is grind and placed on the area (Özdemir, Alpınar, 2015)
Asteraceae	*Cirsium arvense*	Çakırdikeni	Root, Leaf	Fresh, Decoction (Altundag, Ozturk, 2011)
Asteraceae	*Onopordum acanthium*	Kenger, Kinger heron	Seed	Decoction (Polat et al., 2011)
Asteraceae	*Onopordum bracteatum*	Kangal	Root	Infusion (Altundag, Ozturk, 2011)
Asteraceae	*Scolymus hispanicus*	Suluca diken Şevketibostan	Root Seed	Eaten (Kargıoğlu et al., 2010) Decoction (Ugulu et

				al., 2009)
Asteraceae	*Picris strigosa*	Senameki	Root	In porridge (Altundag, Ozturk, 2011)
Asteraceae	*Anthemis coelopoda* var. *bourgaei*	Papatya, Akçabaş, Yavşan, Akbabatça, Kelemli, Akbaşotu	Flower	Decoction (Olgun, 2019)
Asteraceae	*Achillea biebersteinii*	Sarı Flower, Waşzerık, Vılıka çeker, Wılazerd, Pazıma	Flower	Infusion (Tetik et al., 2013) It is grind and mixed with honey and eaten. (Özgen et al., 2012)
Asteraceae	*Crepis vesicaria*	Papatya	Capitulum	Unspecified (Özhatay et al., 2006)
Asteraceae	*Achillea millefolium*	Herezan, Civanperçemi Ayvadana, Dişotu	Leaf, Flower, Aboveground	Decoction (Çakılcıoğlu, Türkoğlu, 2013; (Kültür, 2007) Infusion (Çakılcıoğlu, 2010; Akbulut, Bayramoglu, 2013) Unspecified (Özhatay et al., 2006)
Asteraceae	*Achillea schischkinii*	Civanperçemi	Flower, Leaf	Decoction or Infusion (Tetik et al., 2013) (Toksoy et al., 2010)
Asteraceae	*Carduus nutans* subsp. *leiophyllus*	Çakır dikeni, Deve dikeni, Eşekdikeni, Eşek gengeri	Aboveground	Unspecified (Özhatay et al., 2006) Decoction (Kültür, 2007)
Asteraceae	*Achillea crithmifolia*	Civanperçemi, Mayasıl otu	Aboveground	Infusion (Tuzlacı et al., 2010)
Asteraceae	*Achillea nigrescens*	Civanperçemi	Aboveground	Decoction (Polat et al., 2015)
Asteraceae	*Achillea setacea*	Ayvadani, Mayasılotu	Flower	Unspecified (Özhatay et al., 2006)
Asteraceae	*Bellis perennis*	Koyungözü, Papatya, Çuçake mest	Flower, capitulum	Decoction, Infusion (Tetik et al., 2013). Capitulums are placed in water to sit in (Gelse, 2012)
Asteraceae	*Cichorium intybus*	Hindiba, Sakızotu, Mavihindiba, Karakavuk, Acı marul, Çitlek otu, Sakızlık otu.	Aboveground, Latex Flower	Infusion (Tetik et al., 2013) Unspecified (Koçyiğit, Özhatay, 2006) Decoction (Kızılarslan, Özhatay, 2012; Özgen et al., 2012; Kaval, 2011) Infusion with cucumber peel (Tetik, 2011)
Asteraceae	*Helianthus*	Yerelması, Sevka ağı, Sevik,	Tuber	Eaten (Sezik et al., 2001)

	tuberosus	Seva bine herde, Say binerd		Decoction (Kaval, 2011; Olgun, 2019)
Asteraceae	*Gundelia tournefortii* var. *tournefortii*	Kenger	Fruit, Seed	Roasted and eaten (Arı et al., 2015) Eaten (Şahin, Yiğit, 2014)
Asteraceae	*Tripleurospermum oreades*	Papatya, Oşoş	Aboveground	Decoction (Özgen et al., 2012)
Asteraceae	*Carduus acanthoides* subsp. *acanthoides*	Küçük kenger	Aboveground	Unspecified (Özhatay et al., 2006)
Asteraceae	*Lactuca serriola*	Hindiba, kaju	Aboveground	Infusion (Tetik et al., 2013)
Asteraceae	*Inula anatolica*	Basur otu	Flower	Decoction (Arı et al., 2015)
Asteraceae	*Anthemis austriaca*	Papatya, Akçabas, Yavsan, Akbabatça,	Flower	Decoction (Kaval, 2011)
Asteraceae	*Artemisia absinthium*	Mayasılotu, Acı yavşan, Pelin otu, Doğu horasani	Leaf + Flower, Aboveground	Decoction, applied to the area (Özüdoğru et al., 2011) Infusion + honey (Gül, 2014)
Asteraceae	*Artemisia austriaca*	Yavşan	Aboveground	Decoction (Özgen et al., 2012)
Asteraceae	*Cnicus benedictus*	Şevketi bostan, Akdiken, Mayasıl otu	Aboveground	Infusion (Polat, Satıl, 2012)
Asteraceae	*Matricaria chamomilla* var. *recutita*	Papatya	Capitulum	Infusion (Tuzlacı et al., 2010)
Asteraceae	*Achillea nobilis* L. subsp. *neilreichii*	Mayasıl otu	Capitulum	Infusion (Bulut, Tuzlacı, 2015)
Asteraceae	*Anthemis altissima*	Papatya	Flower	Infusion (Akbulut, Bayramoglu, 2013)
Asteraceae	*Achillea nobilis* subsp. *sipylea*	Kabe fesleğeni, Mayasıl otu	Aboveground	Infusion (Bulut, Tuzlacı, 2015)
Asteraceae	*Anthemis nobilis*	Papatya	Flower	Infusion (Akbulut, Bayramoglu, 2013)
Asteraceae	*Crepis zacintha*	Mayasılotu	Aboveground	Decoction (Kültür, 2007)
Berberidaceae	*Berberis integerrima*	Kızambuk, Kızambık	Shoot	Decoction (Özgen et al., 2012)
Berberidaceae	*Leontice leontopetalum* subsp. *leontopetalum*	Patlangaç	Tuber	Unspecified (Uysal et al., 2010)
Berberidaceae	*Berberis crataegina*	Zirinç, Karamuk, Kadıntuzluğu	Root	Decoction (Altundag, Ozturk, 2011; Şahin, Yiğit, 2014)

				Infusion (Yeşil, Akalın, 2009)
Berberidaceae	*Berberis vulgaris*	Sarı çalı, Karamuk	Fruit	Eaten as raw (Cakilcioglu et al., 2011; Tetik et al., 2013) (Kilic, Bagci, 2013)
Betulaceae	*Alnus glutinosa*	Kızılıağaç	Seed, branch, Flower	Decoction (Polat et al., 2015; Ecevit et al., 2006) Unspecified (Özhatay et al., 2006)
Boraginaceae	*Onosma sericeum*	Havacıva	Root	Decoction, Pomad (Tetik et al., 2013)
Boraginaceae	*Onosma armeniacum*	Havacıva	Root	In the form of a suppository or decoction (Özgen et al., 2012)
Boraginaceae	*Alkanna tinctoria* subsp. *glandulosa*	Havacıva otu	Root	Decoction (Arı et al., 2015)
Brassicaceae	*Capsella bursa-pastoris*	Çoban çantası, Pıronek, Puronek, Iciril gasfur	Aboveground, Leaf	Infusion, in porridge (Tetik et al., 2013) (Ugulu, 2011; Polat et al., 2013; Ugulu et al., 2009), Unspecified (Güzel et al., 2015)
Brassicaceae	*Lepidium latifolium*	Nojdar, Zarende	Leaf	Unspecified (Uce, Tunçtürk, 2014)
Cactaceae	*Opuntia ficus-indica*	Eşek inciri, Dikenli incir, Frenk yemişi	Leaf	It is heated and placed on the area (Akaydın et al., 2013)
Capparaceae	*Capparis spinosa*	Keber, Kapari, Kedi tırnağı, Gebere	Fruit, bud	Decoction (Altundag, Ozturk, 2011) (Sargın, 2015) Eaten (Şahin, Yiğit, 2014)
Capparaceae	*Capparis ovata*	Kapari, Kebere, Devedikeni, Gebre otu, Keditırnağı, Gebre otu, Kapari	Fruit	Eaten (Gelse, 2012)
Capparaceae	*Capparis orientalis*	Kapari, Kedi tırnağı, Gebere	Bud, Fruit	Infusion (Sargın, 2015)
Caprifoliaceae	*Sambucus ebulus*	Bezirgan, sultan otu, Bıyırgan, Ademotu, Piran, Mülver, Mürver	Fruit Aboveground	Decoction (Tuzlacı et al., 2001; Kültür, 2007) Unspecified (Koçyiğit, Özhatay, 2006; Özhatay et al., 2006) It is kept in olive oil and applied to the area (Kızılarslan, Özhatay,

				2012) Eaten (Sağıroğlu et al., 2012)
Caprifoliaceae	*Sambucus nigra*	Mürver, Mürver çiçeği, Mürver ağacı, Mülver, Köpek üzümü	Seed, Fruit	Infusion (Kültür, 2007) Decoction (Sargin et al., 2015) Applied by grinding (Güler et al., 2015)
Caprifoliaceae	*Viburnum lantana*	Germeşe		Eaten or Decoction (Özgen et al., 2012)
Caryophyllaceae	*Telephium impertai*	Mayasılotu	Aboveground, Leaf	Decoction (Altundag, Ozturk, 2011) (Tetik et al., 2013)
Caryophyllaceae	*Dianthus zonatus* var. *aristatus*	Basur otu	Flower	Decoction (Arı et al., 2015)
Chenopodiaceae	*Beta corolliflora*	Kızılca, Şeker pancarı	Root	Decoction (Altundag, Ozturk., 2011)
Chenopodiaceae	*Chenopodium album* subsp. *album* var. *album*	Sılmık	Aboveground	Decoction (Doğan, 2014)
Combretaceae	*Terminalia chebula*	Kara Halile	Fruit	Unspecified (Altay et al., 2015)
Combretaceae	*Terminalia citrina*	Kara Halile	Fruit	Unspecified (Altay et al., 2015)
Compositae	*Anthemis tinctoria* var. *tinctoria*	Sarı papatya	Aboveground, Flower	Decoction (Kültür, 2007) Unspecified (Özhatay et al., 2006) Infusion (Akbulut, Bayramoglu, 2013)
Crassulaceae	*Sedum album*	Damkoruğu	Aboveground	Crushed, pomade (Ugulu, 2011; Ugulu et al., 2009)
Cruciferae	*Cardamine raphanifolia* Pourr.	Mayasıl otu, Kuş lahanası	Aboveground	Eaten (Sağıroğlu et al., 2012)
Cucurbitaceae	*Ecballium elaterium*	Acı kavun, Acı dülek, Cırtatan Şeytan keli, Şeytan keleği, Delihışır Otu, Şeytan kavunu, Acı kelek	Fruit, Root, fruit juice	It is applied by crushing (Kültür, 2007), Rubbed with olive oil (Polat, Satıl, 2012), Drinking (Tuzlacı, Eryaşar-Aymaz, 2001), Unspecified (Kalankan et al., 2015; Güzel et al., 2015), Eaten (Sezik et al., 2001)
Cucurbitaceae	*Momordica charantia*	Kudret narı	Fruit, Leaf	It is infused with olive oil for a few days. Eat hungry in the morning (Akaydın et al., 2013; Sargın, 2015)
Cupressaceae	*Juniperus*	Ardıç, Andız, Çitandız, Katran	Fruit	Decoction (Altundag, Ozturk, 2011)

	excelsa	ağacı		Unspecified (Altındağ-Çakır, 2017)
Cupressaceae	*Juniperus oxycedrus* subsp. *oxycedrus*	Ardıç, Diken ardıcı,Andıç,Ardıçkatranı, Ardıç üzümü, Çıtımık, Gıli gıli, Katran ardıcı	Seed, Fruit, Leaf	Decoction (Sezik et al., 2001) Eaten (Ugurlu, Secmen, 2008) Unspecified (Altındağ-Çakır, 2017; Özhatay et al., 2006) Pomad (Polat, Satıl, 2012)
Cupressaceae	*Juniperus drupacea*	Andız, Ardıç, Ardıçgiliği, Ayıgiliği, Dikenli andız, Pıt andız	Bud, cone	Unspecified (Altındağ, Çakır, 2017) Decoction (Demirci, Özhatay, 2012)
Cupressaceae	*Juniperus communis* subsp. *alpina*	Çeçem gagası	Fruit	Eaten (Özgen et al., 2012)
Cupressaceae	*Cupressus sempervirens*	Ardıç, Katran ardıcı	Cone	Decoction (Polat, Satıl, 2012)
Dioscoreaceae	*Tamus communis* L. subsp. *cretica*	Tilki üzümü, Yandıran	Root	Eaten in small pieces (Tuzlacı et al., 2001)
Equisetaceae	*Equisetum arvense*	Ulama otu	Aboveground	Decoction (Özüdoğru et al., 2011)
Equisetaceae	*Equisetum telmateia*	At kuyruğu, suotu, eklemotu, kırkkilit, minare otu, tilki kuyruğu	Aboveground	Unspecified (Özhatay et al., 2006)
Ericaceae	*Arbutus unedo*	Davulga, yemişen	Leaf	Decoction (Tuzlacı et al., 2001)
Euphorbiaceae	*Euphorbia macroclada* Boiss.	Sütleyen	Latex	Spread (Çakılcıoğlu, Türkoğlu, 2013)
Euphorbiaceae	*Euphorbia cheiradenia*	Sütleğen, Sütlüce, Sülük otu, Silan, Sütümüshil	Latex	Eaten (Gelse, 2012)
Euphorbiaceae	*Ricinus communis*	Hint yağı bitkisi	Seed oil	Unspecified (Süzgeç et al., 2012)
Fabaceae	*Lotus corniculatus*	Gazalboynuzu	Aboveground	Decoction (Altundag, Ozturk, 2011)
Fabaceae	*Trifolium ambiguum*	Alma otu	Aboveground	Decoction (Altundag, Ozturk, 2011)
Fabaceae	*Acacia karroo*	Akasya, Akasya ağacı	Branch, bud	The buds are sucked, the branches are put in the area as ash (Sargın, 2015)
Fabaceae	*Glycyrrhiza glabra* var. *glandulifera*	Payam, Mekik Rootü, Meyan, Piyan	Root	Decoction (Sezik et al., 2001; Kaval, 2011)
Fabaceae	*Glycyrrhiza echinata*	Acı meyan	Root	Decoction (Güzel et al., 2015)

Fagaceae	*Quercus cerris* var. *cerris*	Meşe, Kızılmeşe	Branch, Leaf, Fruit	Decoction (Arı et al., 2015) Infusion (Tetik et al., 2013)
Fagaceae	*Quercus* sp.	Mese palamudu, Pelit, mese kozası,	Leaf	Eaten with honey Decoction (Akgül et al., 2016)
Fagaceae	*Castanea sativa*	Kestane	Fruit, Cortex	Infusion (Güler et al., 2015)
Fagaceae	*Quercus petraea*	Balu, Bali, Mazer, Welg, Meşe	Fruit	Infusion (Polat et al., 2013) Eaten (Doğan, 2014)
Fagaceae	*Quercus libani*	Balu, Bali, Azgiller, Welg, Meşe	Fruit Leaf, cortex	Heated (Polat et al., 2013) Decoction (Sezik et al., 2001) (Olgun, 2019) Eaten (Doğan, 2014)
Fagaceae	*Quercus Infectoria* subsp. *boissieri*	Dara mazıyr	Acorn	Grind and eaten with yoghurt (Olgun, 2019)
Fagaceae	*Quercus pubescens*	Bozmeşe	Leaf, Cortex	Decoction (Sezik et al., 2001)
Fumariaceae	*Fumaria asepala*	Şahtere	Fruit, Leaf	Decoction (Cakilcioglu et al., 2011)
Fumariaceae	*Fumaria officinalis*	Şahtere	Aboveground	Decoction (Güneş, Özhatay, 2011)
Gentianaceae	*Centaurium erythraea* subsp. *erythraea*	Kırmızı kantaron, Afyonotu	Flower, Aboveground	Infusion (Tuzlacı, Eryaşar-Aymaz, 2001) Eaten (Kızılarslan, Özhatay, 2012)
Geranıaceae	*Erodium cicutarium* subsp. *cicutarium*	Potot	Aboveground	Decoction (Özgen et al., 2012)
Hamamelidaceae	*Hamamelis virginiana*	Adi Cadı Fındığı	Leaf	Unspecified (Süzgeç et al., 2012)
Hypericaceae	*Hypericum montbretii*	Çay otu	Aboveground	Decoction (Altundag, Ozturk, 2011)
Hypericaceae	*Hypericum lydium*	Mayasılotu	Aboveground	Decoction (Sezik et al., 2001)
Hypericaceae	*Hypericum orientale*	Kırmızı kantaron, Mayasılotu	Aboveground	Infusion (Özdemir, Alpınar, 2015)
Hypericaceae	*Hypericum perforatum*	Binbirdelikotu, Kantaron, Sarı kantaron, Yakı otu, Dişice, Koramanotu,	Aboveground , Seed, Flower	Decoction (Tuzlacı et al., 2001; Sezik et al., 2001), Infusion (Kilic, Bagci, 2013) Unspecified (Koçyiğit, Özhatay, 2006; Özhatay et al., 2006)
Hypericaceae	*Hypericum scabrum*	Sancı otu, Mayasıl otu, Sarı kantaron Koyunkıran, Yara otu, Mide	Flower, Leaf, Aboveground, Fruit	Decoction (Sezik et al., 2001) Infusion (Tuzlacı, Şenkardeş, 2011; Yeşil, Akalın, 2009;

		otu		Özdemir, Alpınar, 2015) Pomad (Tetik et al., 2013)
Hypericaceae	*Hypericum capitatum* var. *capitatum*	Kılıç otu	Flower	Unspecified (Aslan, 2019)
Juglandaceae	*Juglans regia*	Ceviz, Goz, Guaz, Koz, Güz, Kuz, Yondak, Guz, Ceviz ağacı	Leaf, Fruit, branch	Decoction (Tetik et al., 2013), Eaten fresh (Çakılcıoğlu, Türkoğlu, 2013; Kültür, 2007; Güler et al., 2015), Evaporation (Bulut, Tuzlacı, 2015), Infusion (Polat et al., 2013), Fruits swalloved (Tetik, 2011)
Lamiaceae	*Salvia cryptantha*	Ada çayı, Ballık otu, Kokulu ot, Sarı şabla	Aboveground	Infusion (Tuzlacı, Şenkardeş, 2011)
Labiatae	*Ajuga orientalis*	Mayasıl otu	Aboveground	Dried and decoction (Güneş, Özhatay, 2011)
Lamiaceae	*Teucrium polium*	Mayasıl otu, Merven, Kısamahmut Otu, Parihavşan, Kekik, Keselmehmut.	Aboveground	Infusion, Applied directly or Decoction (Bulut, 2011; Tuzlacı et al., 2010; Kalankan et al., 2015; Yeşil, Akalın, 2009; Arı et al., 2015; Kaval, 2011)
Lamiaceae	*Ajuga chamaeptys*	Mayasıl otu Basurotu	Flower, Aboveground	Infusion (Kilic, Bagci, 2013) Decoction (Güzel et al., 2015)
Lamiaceae	*Thymus leucostomus* var.*leucostomus*	Kekik	Aboveground	Infusion (Sarper et al., 2009; Sarper et al., 2009)
Lamiaceae	*Salvia virgata*	Bares, Dağ çayı, Yılancık, Ellik otu, Ballıbaba, Katırtırnağı	Aboveground	Decoction (Kaval, 2011)
Lamiaceae	*Rosmarinus officinalis*	Biberiye	Unspecified	Unspecified (Ugulu, Baslar, 2010)
Lamiaceae	*Lamium album*	Ballıbaba	Leaf	Pomad (Ugulu et al., 2009)
Lamiaceae	*Thymbra spicata*	Zahter	Leaf	Decoction (Ugulu et al., 2009)
Lamiaceae	*Mentha longifolia*	Yarpuz, Püng, Punk, Dere nanesi,Tüylü nane, İt nanesi, Yabani nane, Pune	Aboveground	Infusion or Decoction (Güneş, Özhatay, 2011; (Özüdoğru et al., 2011; Yeşil, Akalın, 2009; Özgen et al., 2012) Eaten (Sezik et al., 2001; Gelse, 2012) Decoction (Akaydın et al., 2013)
Lamiaceae	*Teucrium parviflorum*	Dağ kekiği	Aboveground	Decoction (Altundag, Ozturk, 2011)

Lamiaceae	*Teucrium chamaedrys*	Basur otu, Mayasıl otu, Acı ot, Çayeqwe, Kısa mahmut	Aboveground, Leaf	Infusion (Özdemir, Alpınar, 2015), Grind and eaten with honey (Özgen et al., 2012). Decoction (Gelse, 2012) Infusion (Demirci, Özhatay, 2012). Decoction (Ecevit-Genç, Özhatay, 2006)
Lamiaceae	*Mentha spicata* subsp. *spicata*	Nane, Pune, Narpız, Pune, Punı	Leaf, Aboveground	Decoction (Cakilcioglu et al., 2011) (Tetik et al., 2013)
Lamiaceae	*Marrubium parviflorum*	Bozotu	Aboveground	Unspecified (Özüdoğru et al., 2011)
Lamiaceae	*Ocimum bacilicum*	Fesleğen, Reyhan	Leaf, Flower, Seed	Dried (Akgül et al., 2016)
Lamiaceae	*Origanum vulgare*	Kekik otu, Keklik otu, Anık, Onıx, Anıx, Kekik	Leaf,	Infusion (Tuzlacı, Eryaşar-Aymaz, 2001) Decoction (Çakılcıoğlu, Türkoğlu, 2013)
Lamiaceae	*Teucrium flavum*	Mayasıl otu, Egzaman otu	Aboveground	Decoction (Tuzlacı, Eryaşar-Aymaz, 2001) Infusion (Kalankan et al., 2015)
Lamiaceae	*Thymus longicaulis*	Taş kekiği	Aboveground	Decoction (Tuzlacı et al., 2001)
Lamiaceae	*Thymus fallax*	Kekik otu	Aboveground	Decoction (Özgen et al., 2012)
Lamiaceae	*Thymus haussknechtii*	Dağkekiği, Kekik	Leaf	Decoction (Çakılcıoğlu, Türkoğlu, 2013)
Lamiaceae	*Teucrium lamiifolium* subsp. *lamiifolium*	Mayasıl Otu	Aboveground	Infusion (Kalankan et al., 2015)
Lamiaceae	*Sideritis bilgeriana*	Boz şabla, Kekikçayı, Yaylaçayı	Aboveground	Infusion (Özdemir, Alpınar, 2015)
Lauraceae	*Laurus nobilis*	Defne	Leaf	Infusion (Ugulu et al., 2009) Decoction (Güzel et al., 2015)
Liliaceae	*Hyacinthus orientalis*	Sümbül	Leaf	Grind and aplication area (Altundag, Ozturk, 2011)
Liliaceae	*Allium sativum*	Sarımsak	Underground parts	Unspecified (Tuzlacı, Eryaşar-Aymaz, 2001), Cooked in ashes, porridge is made (Çakılcıoğlu, Türkoğlu, 2013). Pieces are rubs the area (Sezik et al., 2001)
Liliaceae	*Allium cepa*	Soğan	Tuber	Decoction (Çakılcıoğlu, Türkoğlu, 2013)

				Crushed by heating (Kültür, 2007)
Liliaceae	*Allium porrum*	Pırasa	Whole part	It is boiled with milk and applied to the area (Sezik et al., 2001; Koşar et al., 2005)
Liliaceae	*Asphodelus aestivus*	Hıdırellez kamçısı, Nünü, Çiriş otu	Tuber, Root	Decoction (Tuzlacı, Eryaşar-Aymaz, 2001; Bulut, Tuzlacı, 2015) Infusion (Ugulu et al., 2009)
Linaceae	*Linum usitatissimum*	Keten, Kirbas Seedu, Siyelek, Bezir, Bızıktan	Seed	Infusion (Ugulu et al., 2009) Unspecified (Şahin-Yiğit, 2014)
Loranthaceae	*Viscum album* L.	Ökse otu, Çöpleme	Leaf, Fruit, Whole part	Decoction (Altundag, Ozturk, 2011; Yeşil, Akalın, 2009)
Loranthaceae	*Arceuthobium oxycedri*	Parda burcu, Çakirga burcu, Ardiç burcu, Andiz güvelegi	Whole part	Unspecified (Kupeli et al., 2007)
Malvaceae	*Malva sylvestris*	Ebe gümeci, Xemazek, Gömeçotu	Flower, Leaf, Aboveground	Infusion or Decoction (Bulut, 2011) (Tuzlacı, Şenkardeş, 2011; Tuzlacı et al., 2010; Korkmaz et al., 2016)
Malvaceae	*Malva neglecta*	Ebegümeci, Ebem kömenci, Dolluk, toltolik, Doğnuk, Hiru, Xemazek, Veraruejık, Tollık, Ebemkömeci,	Branch, Leaf, Seed, Whole part, Root	Decoction or Infusion (Altay et al., 2015; Tetik et al., 2013; Sarper et al., 2009; Kilic, Bagci, 2013; Yesilada, 2008), Applied directly by crushing (Yeşil, Akalın, 2009) It is made into porridge with olive oil or eaten (Özgen et al., 2012)
Malvaceae	*Tilia argentea*	Gümüşi ıhlamur	Unspecified	Unspecified (Yesilada, 2008)
Malvaceae	*Hibiscus trionum*	Bamya	Seed	The seed is roasted and ground into powder, mixed with 2 tablespoons of honey and taken twice a day. (Akaydın et al., 2013)
Malvaceae	*Althaea hohenackeri*	Hero, Hiro, Gül hatmi, Fatma gülü	Root	Decoction (Kaval, 2011)
Malvaceae	*Alcea apterocarpa*	Hatmi (Hıra otu)	Flower	Boiled and applied to the area (Aslan, 2019)
Meliaceae	*Melia azedarach* L.	Tespih agacı	Fruit	Boiled and eaten with chickpeas (Güzel et al., 2015)

Moraceae	*Ficus carica* subsp. *carica*	İncir, İncir ağacı	Leaf Fruit	Infusion (Tuzlacı et al., 2010), Crushed and mixed with honey (Tuzlacı et al., 2001), eaten (Çakılcıoğlu, Türkoğlu, 2013) Decoction (Polat et al., 2015)
Moraceae	*Morus nigra*	Dut, Kara dut	Fruit, branch	Eaten hungry (Çakılcıoğlu, Türkoğlu, 2013) Peeled, sliced and eaten (Ecevit, Özhatay, 2006)
Oleaceae	*Fraxinus ornus* subsp. *ornus*	Dışbudak	Root bark	Decoction + sugar (Tuzlacı et al., 2010)
Orchidaceae	*Orchis* sp.	Salep	Tuber	Decoction (Ugulu et al., 2009)
Papaveraceae	*Papaver rhoeas*	Gelincik, Borcanka, Gelincikotu	Flower, Whole part	Decoction (Ecevit et al., 2006) Unspecified (Özhatay et al., 2006)
Papaveraceae	*Chelidonium majus*	Kırlangıç otu	Aboveground	Infusion (Arı et al., 2015)
Papaveraceae	*Glaucium leiocarpum*	Ala böğündürme	Aboveground	It is grind and applied to the area with honey (Sargın, 2015)
Pinaceae	*Pinus pinea*	Çam fıstığı, Fıstık çamı, Küner çamı	Seed, Root	Unspecified (Altındağ-Çakır, 2017)
Plantaginaceae	*Plantago major* subsp. *major*	Bağa yaprağı, Sinir otu, Babadeşen, Marşal otu, Kırkdamak otu, Siyil otu	Leaf Seed	Decoction (Altundag, Ozturk, 2011) (Cakilcioglu et al., 2011), Infusion (Polat et al., 2015). It is applied to the area by crushing (Akyol, Altan, 2013), ground and applied to the area with honey (Sezik et al., 2001), Eaten (Sağıroğlu et al., 2012)
Plantaginaceae	*Plantago media*	Sinirotu, Sinirli ot	Leaf	Pomad (Korkmaz et al., 2016)
Plantaginaceae	*Plantago lanceolata*	Sinirli ot, Sinirotu, Bobvitsa, Damarotu, Kesikotu,	Seed, Leaf	Crushed and eaten (Ecevit-Genç, Özhatay, 2006) Unspecified (Özhatay et al., 2006) Crushed and eaten with honey (Kaval, 2011)
Poaceae	*Zea mays*	Mısır, Germuk, Lazut, Darı, püskülü, Lazuk, Mısır püskülü	Stilus, Flower, Leaf	Decoction (Altundag, Ozturk, 2011) Infusion (Kaval, 2011; Olgun, 2019)

Poaceae	*Cynodon dactylon*	Aynkotu, Beygirotu	Whole part	Decoction (Kızılarslan, Özhatay, 2012)
Polygonaceae	*Rheum ribes*	Işgın, Eşgin, Revas, Uskun, Rıbes, Iskın, Esgin, Rıbis	Root, buds, Aboveground	Decoction or infusion (Tetik et al., 2013; Özgen et al., 2012; Kaval, 2011; Gelse, 2012)
Polygonaceae	*Rumex crispus*	Evelik, Kuzu kulağı	Leaf, Seed	Decoction (Özgen et al., 2012)
Polygonaceae	*Polygonum lapathifolium*	Dereotu, Dere biberi, Deve sürdeği	Aboveground	Decoction (Kültür, 2007) Unspecified (Özhatay et al., 2006)
Polygonaceae	*Polygonum arenastrum*	Nanecük, Madımak, Kurtpençesi, Yesil su biberi	Aboveground	Decoction (Gelse, 2012)
Polygonaceae	*Rumex obtusifolius* subsp. *subalpinus*	Lapaza	Seed	Infusion (Sağıroğlu et al., 2012)
Polygonaceae	*Polygonum equisetiforme*	Dereotu	Whole part	Unspecified (Özhatay et al., 2006)
Polygonaceae	*Rumex patientia*	At eveliği	Leaf	Infusion (Altundag, Ozturk, 2011)
Polygonaceae	*Rumex acetosella*	Kuzukulağı	Leaf	Decoction (Cakilcioglu et al., 2011)
Portulacaceae	*Portulaca oleracea*	Porpine, Parpar, Semizotu, Madımak,Perpar Pirpirim	Aboveground, Leaf	Infusion (Sargın, 2015) Mash (Kaval, 2011; Gelse, 2012; Olgun, 2019)
Punicaceae	*Punica granatum* L.	Nar	Fruit	Decoction (Çakılcıoğlu, Türkoğlu, 2013)
Ranunculaceae	*Caltha polypetala*	Lilipar	Flower	Decoction, drink the soup (Güneş, Özhatay, 2011)
Ranunculaceae	*Ranunculus ficaria* subsp. *ficariiformis*	SarıFlower, Düğün çiçeği, Mayıs çiçeği, Altın tabak, Basur otu	Flower, Aboveground	Infusion (Arı et al., 2015) It is grind and applied to the area. (Güzel et al., 2015)
Resedaceae	*Reseda lutea* var. *lutea*	Eşek gerdanası, Eşek otu	Aboveground, Fruit	Infusion (Özdemir, Alpınar, 2015) Decoction (Doğan, 2014)
Rhamnaceae	*Frangula alnus*	Barut ağacı, Erkek akdiken	Barks	Unspecified (23)
Rhamnaceae	*Paliurus spina-christi*	Karaçalı,Pane	Fruit, Root	Unspecified (Koçyiğit, Özhatay, 2006)
Rosaceae	*Mespilus germanica*	Döngel, Muşmula, Dut	Leaf	Decoction (Bulut, 2011)
Rosaceae	*Amygdalus communis*	Badem	Fruit	It is powdered and mixed with olive oil (Çakılcıoğlu, Türkoğlu, 2013)

Rosaceae	*Rosa canina*	Kuşburnu,Sıtma gülü, İt gülü,Yabani gül, Öküz gözü, Öküz götü, Köpek gülü, Gözkıvıştran,	Root, Fruit, Flower	Decoction or Infusion (Tetik et al., 2013; Demirci, Özhatay, 2012; Sargın, 2015), Eaten (Yeşil, Akalın, 2009; Sezik et al., 2001; Arı et al., 2015)
Rosaceae	*Rosa pimpinellifolia*	Koyungözü	Root, Fruit	Decoction (Altundag, Ozturk, 2011)
Rosaceae	*Cotoneaster nummularia*	Koyun gözü	Fruit	Eaten (Özgen et al., 2012)
Rosaceae	*Lauracerasus officinalis*	Kastanicça karamişi	Whole part	Eaten (Sağıroğlu et al., 2012)
Rosaceae	*Rosa gallica*	Kuşburnu	Root, Fruit	Decoction (Özgen et al., 2012)
Rosaceae	*Rosa pimpinellifolia*	Koyun gözü	Fruit	Eaten (Özgen et al., 2012)
Rosaceae	*Laurocerasus officinalis*	Taflan, Karayemiş	Fruit Seed	Unspecified (Koçyiğit, Özhatay, 2006; Erdemoglu et al., 2003)
Rosaceae	*Rosa sempervirens*	Gülbüzük, İtburnu, Kuşburnu, Sıtmagülü	Fruit	Decoction+ sugar (Tuzlacı, Eryaşar-Aymaz, 2001)
Rosaceae	*Rosa dumalis* subsp. *boissieri*	Kuşburnu, Sungulor, Yabani gül, Purç, İt gülü, İtburnu	Root, Fruit, Leaf	Decoction (Özgen et al., 2012; Olgun, 2019)
Rosaceae	*Sorbus aucuparia*	Üvez	Fruit	Eaten (Kültür, 2007) Unspecified (Özhatay et al., 2006)
Rosaceae	*Rubus canescens* var. *canescens*	Karantı, Karamuk	Root Fruit	Decoction (Tuzlacı, Eryaşar-Aymaz, 2001) (Gelse, 2012) Infusion (Polat et al., 2015)
Rosaceae	*Rubus sanctus*	Böğürtlen, Gül üzüm, Tuntırk, Truresk, Karamık, Karantı, Tilki otu	Fruit, Leaf, Flower, Root	Crushed, Infusion Decoction (Tetik et al., 2013; Ugulu, 2011; Kalankan et al., 2015; Kilic, Bagci, 2013; Güzel et al., 2015)
Rosaceae	*Rubus caesius*	Fuska dikeni, Pamuk dikeni, Zincer üzümü, Böğürtlen	Root, Leaf	Drink the soup (Sağıroğlu et al., 2012) Decoction (Kaval, 2011)
Rosaceae	*Crataegus meyeri*	Alıç	Leaf	Infusion (Tetik et al., 2013)
Rosaceae	*Crataegus orientalis*	Alıç	Flower, buds	Infusion (Çakılcıoğlu, Türkoğlu, 2013) Decoction (Sezik et al., 2001)
Rosaceae	*Cydonia oblonga*	Ayva	Leaf	Decoction (Tetik et al., 2013)

				Infusion (Ecevit-Genç, Özhatay, 2006)
Rosaceae	*Sarcopoterium spinosum*	Çeti	Seed	Rubs the area (Ertuğ, 2002)
Rosaceae	*Cydonia vulgaris*	Ayva	Leaf	Infusion (Çakılcıoğlu, Türkoğlu, 2013)
Rosaceae	*Prunus armeniaca*	Kayısı	Fruit	Eaten as hungry (Çakılcıoğlu, Türkoğlu, 2013)
Rosaceae	*Fragaria vesca*	Dağ çileği	Branch, Fruit, Root	Decoction (Bulut et al., 2014)
Sapındaceae	*Aesculus hippocastanum* L.	At kestanesi	Fruit	Unspecified (Altay et al., 2015) Decoction (Ugulu et al., 2009)
Scrophulariaceae	*Verbascum lasianthum*	Sığırkuyruğu, Boçey gayo	Flower, Leaf,	Infusion (Tuzlacı, Şenkardeş, 2011; Çakılcıoğlu, Türkoğlu, 2013)
Scrophulariaceae	*Verbascum dudleyanum*	Sığır kuyruğu	Flower, Leaf	Decoction with sugar (Güneş, Özhatay, 2011)
Scrophulariaceae	*Verbascum speciosum*	Ayilahanasi, Kabalak	Flower, Root	Infusion (Kızılarslan, Özhatay, 2012)
Scrophulariaceae	*Verbascum cherianthifolium* var. *cataonicum*	Sığır kuyruğu	Leaf	Porridge is made (Özgen et al., 2012)
Solanaceae	*Solanum melongena*	Patlıcan	Whole part, Fruit stalk	It is cooked on embers and applied to the area (Çakılcıoğlu, Türkoğlu, 2013)
Solanaceae	*Datura stramonium*	Afyonotu, Eşekdikeni, Eşekotu	Seed	Eaten hungry (Kızılarslan, Özhatay, 2012)
Styracaceae	*Styrax officinalis* L.	Ayı fındığı, Ayva yaprağı, Tespihağacı	Unspecified	Infusion (Şahin-Yiğit, 2014)
Thymelaeaceae	*Daphne sericea*	Tavuk çiçegi	Leaf	It is ground, mixed with oil and rubbed into the area (Güzel et al., 2015)
Urticaceae	*Urtica dioica*	Isırgan, Isırganotu, Derzinek, Gerzinık, Gerzunek, Gezok,	Aboveground, Leaf, whole part, Seed	Infusion or decoction (Bulut, 2011; Akaydın et al., 2013; Bulut, Tuzlacı, 2015; Yeşil, Akalın, 2009; Güzel et al., 2015), Boiled with milk and rubs the area (Sezik et al., 2001), Seed+honey eaten hungry (Kaval, 2011)
Urticaceae	*Urtica urens*	Isırgan, Isırganotu	Aboveground, seed, leaf	Cooking (Bulut, 2011) Infusion (Kalankan et al., 2015) Unspecified (Özhatay

				et al., 2006)
Verbenaceae	*Vitex agnus-castus* L.	Hayıt	Fruit	Decoction (Kargıoğlu et al., 2010)
Vitaceae	*Vitis sylvestris*	Asma, üzüm	Fruit, Leaf	Decoction, Chewing (Kilic, Bagci, 2013)
Vitaceae	*Vitis vinifera* L.	Öküzgözü, Üzüm, Asma, Koruk, Yabani asma, Çakal üzümü, Tri	Leaf, Seed, Fruit	Infusion (Çakılcıoğlu, Türkoğlu, 2013) Eaten (Sezik et al., 2001) Decoction (Kaval, 2011)
Zygophyllaceae	*Peganum harmala*	Üzerlik, Üzerlik Seedu	Root, seed, whole part, fruit	Decoction (Ugulu et al., 2009) Eaten with honey (Akgül et al., 2016), Roasted, mixed with olive oil and applied to the area. (Çakılcıoğlu, Türkoğlu, 2013), Eaten (Özdemir, Alpınar, 2015) Seed+oil, pomad (Güler et al., 2015)
Zygophyllaceae	*Tribulus terrestris*	Pıtırak, Çoban çökerten, Demir dikeni, Gwerçal	Fruit, Flower	Decoction Infusion (Cakilcioglu et al., 2011; Tetik et al., 2013; Polat et al., 2013) Apply flower oil (Arı et al., 2015)

4. Discussion

Since the beginning of civilization, people have used plants, especially medicinal and aromatics. Ethnobotanical data obtained from cultural, empirical, or complementary medical usage of plants may be worth investigating for new therapeutic research possibilities. The use of traditional medicines, such as plants and plant extracts, in hemorrhoids therapy varies according to the different cultural traditions. Recently the practice of herbal medicine has been declining in many places; this may in future lead to the loss of important information about the plant taxa used by local people (Harsha et al., 2002). The demand for herbal medicines and natural plants are increasing due to their lack of side effects. Therefore, necessary studies should be carried out quickly, to not lost this important information. In the literature, there are few studies used plants on hemorrhoids, so it is aimed to contribute to the subject with this review study. World Health Organization defines a medicinal plant as any plant that contains substances that can be used for therapeutic purposes or that are precursors for the manufacture of valuable pharmaceuticals in different organs (WHO, 1976).

In a study, a total of 143 plant taxa belonging to 58 families were found to be useful for the treatment of hemorrhoids (Mike et al., 2010). In this study, a total of 231 plant taxa have been documented for their therapeutic and traditional herbal care against hemorrhoids disease, as enlisted in Table 1. The plant parts used ranged from fruit, root, flower, shoot, leaf, stem, bark, seed, and whole plant. The most uses are infusion and decocsion. Details about plants, their families, usage patterns and used parts are shown in Table 1. It is important to develop strong collaboration between medicinal plant researchers, ethnobotanists, traditional medicine practitioners, and industrialists. Plant conservation is critical because it ensures the supply of plants for traditional herbalists, healers, and herb sellers. Traditional medicine and ethnobotany activities have the advantage of being less expensive and more widely available.

5. Conclusion

Traditional medicine and ethnobotany is the most ancient method of curing diseases.

In the present review research we identified 231 plants used traditional by the people of some part of Turkey to cure hemorrhoids disorder. Further extensive ethnobotanical, traditional and ethnopharmacological research may lead to the determine of plant taxa and compounds for hemorrhoids cure.

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