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REVIEW

Plants Used as Painkiller in Folk Medicine in Turkey-I STOMACHACHE

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ABSTRACT

There are many plants used by the public in the treatment of various diseases in Turkey.The folk remedies prepared with these plants from which treatment and how they used have been reached to day-to-day by transferring the generations. Ethnobotanic researches and traditional treatment methods are recorded and it is aimed to contribute to drug development studies.In this study, which was prepared by screening of ethnobotanical researches, 221 taxa which used in traditional treatment against stomachache in Turkey are reached and the scientific , local names, families, used parts of these taxa and the forms used in stomachache were compiled. According to the research done, families that are commonly used for stomachache are Lamiaceae (59 taxa), Asteraceae (28 taxa), Rosaceae (14 taxa), Apiaceae (12 taxa), Hypericaceae (8 taxa) and Fabaceae (7 taxa). The main reason why these family plants are used against stomach ache is that they contain essential oils with stomach related effect. The most commonly used parts of the plants for treatment are herba, leaf, flower, fruit, root and seed. The parts used may be prepared as decoction or infusion in the form of tea, eaten fresh or after being cooked, or by mixing with honey; the herba of some plants is made into mush then put on the stomach is used externally in the treatment of stomachache.

Keywords: Stomachache; traditional treatment; medicinal plants; Turkey.

1. Introduction

Pain is an important health problem that affects millions of people every year and develops due to various causes and has a negative impact on quality of life. International health care organizations have defined pain as a sign of disease [1]. It is also accepted that pain is a disease in itself [2].

Turkey has a great diversity in terms of climate and geographical conditions. This diversity brings the advantage of having a rich plant cover. Approximately eleven thousand plant species are growing in our country, and three thousand of them are endemic [3-5]. From the early ages, the plants are used by people as food or to prevent health problems. Medicinal plants, which have been traditionally used by the public at the time, are recorded with ethnobotanical investigations. Such studies are a very important source of information for drug research. Folk medicine has an important place both in the world and in our country in health field. Traditional treatment is frequently used in the treatment of diseases, especially in less developed regions. In this study, plants which have traditionally been used as

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painkillers in Turkey have been identified by screening ethnobotanical studies. The findings are classified according to pain types and will be published as an article series. This study, which is first article of series, contains the plants used against stomachache.

Stomachache is usually a pain just below the chest and on the upper and middle parts of the abdomen. Sometimes it is felt with a burning sensation. Characteristic stomachache manifests itself in a stinging sensation and is usually long-lasting [6]. Stomachache can occur due to indigestion, peptic ulcer, gastroesophageal reflux disease (GERD), stomach cancer, stress or side effects of NSAID-like drugs.

For the treatment of stomach ache, the underlying cause must first be determined. Later, according to the disease, necessary treatment is provided by using chemotherapeutics such as antimicrobial drugs, histamine H2 receptor blockers, proton pump inhibitors, parasympatholytics, and antacids.

Due to various side effects, drug interactions and high cost in synthetic drugs, interest in herbal medicines is increasing day by day. Among the population, the variety of plants used against stomach ache is quite high. In this study, 221 taxa were obtained against various stomach aches in various regions of Turkey. Scientific names, families, local names, used parts and usage of these taxa are shown in Table 1.

Table 1. The plants used in traditional treatment against stomachache in Turkey.

Botanical name	**Family**	**Local name**	**Plant part used**	**Preparation, administration and use**	**Ref.**
Abies bommülleriana Mattf.	Pinaceae	Künar Sakızı	Resin	Sucked, Int.	(7)
A. cilicica (Ant & Kotschy) Carr. subsp. *cilicica*	Pinaceae	İladin, Ladin	Resin	Melted, Int.	(8)
A. nordmanniana (Stev.) Spach subsp. *equi-trojani* (Aschers. Et Sint. Ex Boiss.) Coode et Cullen	Pinaceae	Andız çam, Kazdağı köknarı	Pin cone	Dec., Int.	(9)
Achillea arabica Kotschy	Asteraceae	Ayvadana, Kurtotu, Populca	Aeria part	Inf., Int.	(10)
A.biebersteinii Afan.	Asteraceae	Arı çiçeği, Erkurtaran, Gırtkesan, Çiçege ma'ran, Sarı çiçek, Ayvadana, Sancı çiçeği	Flower Aerial part Fruit	Dec., Int. Inf., Int. Inf., Int.	(11; 12) (13) (14)
A. nobilis L. subsp. *neilreichii* (Kerner) Formanek	Asteraceae	Civanperçemi, Ayvadana, Aslan bıyığı, Kurt otu	Flower	Dec., Int.	(15)
Acorus calamus L.	Araceae	Eğir, Hazanbel, Azak eğiri	Root	Crushed and Sap Int.	(16)
Adiantum capillus- veneris L.	Adiantaceae	Pırpır otu		Dec., Int.	(17)
Aesculus hippocastanum L.	Hippocastanaceae	At kestanesi, Katırkestanesi	Fruit Stem bark	Crushed, Eaten Crushed, +Hot water, Int.	(18) (19)
Alcanna froedinii Rech.f.	Boraginaceae	Mıjmejok	Aerial part	Dec., Int.	(20)
Alcea aptreocarpa (Fenzl) Boiss.	Malvaceae	Gülhatun çiçeği, Gülhatmi	Root	Dec., Int.	(21)
Alnus glutinosa (L.)Gaertn subsp. *barbata*(C.A. Mey.) Yalt.	Betulaceae	Sakallı kızılağaç	Shell Aerial part	Dec., Int.	(22) (23)
Althea officinalis L.	Malvaceae	Gül hatmi, Gül Fatma, Fatmagül, Hatmi	Flower	Inf., Int.	(24)

Alyssum murale Waldst. & Kit.	Cruciferae	Sünnetlice	Aerial part	Inf., Int.	(10)
Amaranthus retroflexus L.	Amaranthaceae	Leğendur, Tur	Aerial part	Dec., Int. Cooked, Eaten	(25) (26)
Amelanchier parviflora Boiss. var. *parviflora*	Rosaceae	Taş armut	Fruit	Eaten	(27)
Anchusa azurea Miller. var *azurea*	Boraginaceae	Mıjmejok, Guruz Sığırdili	Flower Leaf Aerial part	Cooked, Eaten Inf., Int. Dec./Cooked, Int.	(20) (28) (26; 29)
Anthemis cotula L.	Asteraceae	Papatya, Babaçya, Yoğurt çiçeği, Hozan çiçeği	Flower Aerial part	Inf., Int. Inf., Int.	(8) (10; 30)
A. cretica L. *subsp. anatolica* (Boiss.) Grierson	Asteraceae	Papatya	Flower	Inf., Int.	(31)
A. cretica L. subsp. leucanthemoides	Asteraceae	Papatya, Akbasaca	Aerial part	Inf., Int.	(32)
A. cretica L. subsp. *tenuiloba* (DC) Grierson	Asteraceae	Papatya	Flower	Inf., Int.	(33; 34)
A. nobilis L.	Asteraceae	Sarı papatya	Flower	Inf., Int.	(30; 35)
A. pseudocotula Boiss.	Asteraceae	Papatya, Bopatça	Flower	Inf., Int.	(30; 36)
A. tinctoria L.	Asteraceae	Sarı papatya	Flower	Dec., Int.	(31; 7)
A. tinctoria L. var. *pallida* DC.	Asteraceae	Papatya	Capitulum	Inf., Int.	(30)
Argyrolobium crotalarioides Jaub et Spach	Fabaceae	Ververk	Petal	Eaten	(37)
Armenica vulgaris Lam.	Rosaceae	Kayısı	Resin Seed	Eaten	(38) (39)
Artemisia absinthium L.	Asteraceae	Granguruh, Tahliş, Pelin otu, Acı yavşan	Leaf Flower	Inf., Int. Dec., Int.	(40) (41; 42)
A. spicigera C.Koch	Asteraceae	Gıyabend	Aerial part		(43)
Asphodelus aestivus Brot.	Liliaceae	Çiriş, Çiriş ağusu, Kiriş, Givriş, Çivriş	Root	Dec., Int.	(44)
Asplenium adiantum nigrum L.	Aspleniaceae	Taş eğreltisi, Karabacak	Whole plant	+Honey Dec., Int.	(45)
A. trichomanes L.	Aspleniaceae	Saçak otu, Duvar bilonsi	Aerial part	Dried, Crushed, +Honey Eaten	(22)
Astragalus aureus Willd.	Fabaceae	Geven	Gum	Chewed	(30)
Ballota nigra L.	Lamiaceae	Çay otu, Kanser otu	Aerial part	Inf., Int.	(10)
Bellis perennis L.	Asteraceae	Yoğurt çiçeği, Papatya, Beyaz papatya	Capitulum	Inf., Int.	(46; 47; 48)
Berberis crataegina DC.	Berberidaceae	Garamık, Karamuk, Kızılcıkotu	Fruit	Eaten	(49)
Bifora testiculata (L.) Spreng. Ex Schult.	Apiaceae	Öğlük otu	Aerial part	Inf., Int.	(50)
Brassica oleraceae L.	Brassicaceae	Karnabahar, Lahana	Young flower	Dec., Int.	(10)
Bryonia multiflora Boiss.& Heldr.	Cucurbitaceae	Abdulselam-Daraling	Root	Dec., Int.	(43)
Calepina irregularis (Asso) Thellung	Brassicaceae		Leaf	Cooked, Eaten	(47)
Centaurea iberica Trev. Ex Sprengel	Asteraceae	Çakır dikeni	Capitulum	Inf., Int.	(14)
Centaurium erythraea Rafn.	Gentianaceae	Kırmızı kantaron	Flower	+Honey, Int.	(24; 51)

C. erytrhaea Rafn. subsp. *rumelicum* (Velen.) Melderis	Gentianaceae	Kantaron, Kantarod	Whole plant	Inf., Int.	(52)
C. erytrhaea Rafn. subsp. *turcicum* (Velen.) Melderis	Gentianaceae	Kantaron, Kantarod, Kantariye	Whole plant	Dec., Int.	(52)
Cerasus mahaleb (L.) Miller var. *mahaleb*	Rosaceae	Melem ağacı, Delice kiraz, Yabani kiraz	Fruit	Inf., Int.	(11; 53)
Cercis siliquastrum L.	Fabaceae	Erguvan	Flower	Dec., Int.	(49)
Ceterach officinarum DC.	Aspleniaceae	Taş otu, Deve tabanı, Altın otu	Leaf	Dec., Int.	(54)
Chenopodium murale L.	Chenopodiaceae	Deli kazayağı, Ekşi güneş, Gırya tosbası, Kazayağı, Tavuk otu, Sirken	Leaf	Cooked, Eaten	(10)
Chondrilla juncea L. var. *juncea*	Asteraceae	Çengel sakızı, Acıkök, Hindiba, Sakız otu, Çıtlık	Stem	Gum, Chewed	(18; 55)
Cichorium pumilum Jacq.	Asteraceae	Sütlü ot, İndiba otu	Aerial part	Dec., Int.	(56)
Citrus limonum (L.) Burnm. Fil.	Rutaceae	Limon	Juice	Int.	(57)
Convolvulus scammonia L.	Convolvulaceae	Yiğit kurtaran, Mahmudeotu	Flower	Dec., Int.	(58)
Coriandrum sativum L.	Apiaceae	Kişniş	Fruit	Dec., Int.	(10)
Cota tinctoria L. *var. tinctor*ia	Asteraceae	Papatya	Flower	Inf., Int.	(48)
Cotinus coggyria Scop.	Anacardiaceae	Tetra, Tetere	Branch and leaf	Inf., Int.	(15)
Crataegus monogyna Jacq. subsp. *monogyna*	Rosaceae	Yemişgen, Alişan çalısı, Cadı dikeni, Alıç, Alıç gülü, Yemişen	Flower	Dec., Int.	(40)
Crepis foetida L.	Asteraceae	Şeytan tüyü	Leaf	Dec., Int.	(49)
Cuminum cyminum L.	Apiaceae	Kimyon	Fruit	Dec., Int.	(8)
Cydonia oblonga Miller	Rosaceae	Ayva, Verekılfercel	Fruit Flower	Eaten Cooked, Eaten Dec., Int.	(27; 38) (59) (58)
*Cyperus glabe*r L.	Cyperaceae	Hava otu	Aerial part	Mush, Ext.	(60)
C. longus L.	Cyperaceae	Topalak, Topalak otu, Şembelilik	Tuber	Dec., Int.	(61)
C. rotundus L.	Cyperaceae	Karatopalak, Şembelilik	Tuber	Dec.	(15)
Diplotaenia cachrydifolia Boiss.	Apiaceae	Siyabu	Aerial part	Eaten	(20)
Dracunculus vulgaris Schott	Araceae	Yılan pancarı, Yılan ebesi, Yılan burçağı, Yılanbaşı, Yılan darısı, Kabarcık	Root	Crushed, Eaten	(60)
Dryopteris filix-mas(L.) Schott.	Asidiaceae	Erkek eğreltisi, Solucan eğreltisi	Aerail part and leaf	Dec., Int.	(22; 23)
Echium plantagineum L.	Boraginaceae	Tüylüot	Flower	Dec., Int.	(44)
Elaeagnus angustifolia L.	Elaeagnaceae	İğde	Fruit	Eaten Inf., Int.	(62) (63)

Equisetum arvense L.	Equisetaceae	Su otu, Kırk kilitliot, Minarecik, At kuyruğu, Eklemeli ot, Eklice otu, Kırkkilit, Kilit otu, Mide otu	Root	Dec., In the morning on an empty stomach, Int.	(10)
E. telmateia Ehrh.	Equisetaceae	Çamotu, Bebek otu, Eklem otu, Minare otu, Kuşkonmaz, Fener otu, Kibritotu, Guğuşluk	Aerial part Whole plant	Dec., Int. Dec., Int.	(45) (52)
Eryngium billardieri Delar	Apiaceae	Tüsü	Root	Dec., Int.	(43)
Fagus orientalis Lipsky	Fagaceae	Doğu kayını	Cortex	Dec., Int.	(22)
Ferula caspica Bieb.	Apiaceae	Gırmızı bolu	Aerial part	Dec., Int.	(30)
F. orientalis L.	Apiaceae	Heliz	Root Aerial part	Dec., Int. Inf., Int.	(20) (64)
Ficus carica L. subsp. *carica*	Moraceae	İncir	Leaf	Dec., Int.	(52)
Fumaria asepala Boiss.	Fumariaceae	Şetere	Flower, Leaf	Dec., Int.	(49)
F. officinalis L.	Fumariaceae	Şahtere, Nuzla otu	Flower	Inf., Int.	(28)
F. vailantii Loisel	Fumariaceae	Şahtere	Aerial part	Inf., Int.	(65)
Grammosciadium platycarpum Boiss & Hausskn.	Apiaceae	Rizyane	Aerial part	Dec., Int.	(43)
Hedera helix L**.**	Araliaceae	Orman sarmaşığı	Leaf	Dec., Int.	(23; 28)
Helichrysum arenarium (L.) Moench subsp. *aucheri* (Boiss.) Davis et Kupicha	Asteraceae	Gözlübaba otu, Daş düşüren, Altın otu, Kaya otu, Üzümcük, Mantıfar	Aerial part Capitulum	Inf., Int. Inf./Dec., Int.	(62) (14)
H. graveolens (Bieb.) Sweet	Asteraceae	Yayla çiçeği, Arı çiçeği	Flowering branches	Dec., Int.	(21)
Heracleum platytaenium Boiss.	Apiaceae	Ayıkulağı, Tavşan otu, Ayı göbeği, Su pıtırağı otu	Leaf	Inf., Int.	(62)
H. trachyloma Fisch. & Mey.	Apiaceae	Baldırgan	Stem	Dec., Int.	(30)
Hypericum atomarium Boiss.	Hypericaceae	Sarı kantaron	Aerial part	Dec., Int.	(45)
H. calycinum L.	Hypericaceae	İnmek otu, Kırtış otu, Kantaron	Leaf and Flower	Inf., Int.	(33)
H. lydium Boiss.	Hypericaceae	Caye sancıyan, Kulilka zar, Mide otu, Sancı otu	Aerial part	Inf., Int.	(66)
H. montbretti Spach	Hypericaceae	Kantaron, Kantaron otu	Aerial part	Inf., Int. +Olive oil, Mac.	(10; 24)
H. olympicum L. subsp. *olympicum*	Hypericaceae	Sarı kantaron	Aerial part	Dec., Int.	(45)
H. perforatum L.	Hypericaceae	Sarı kantaron, Kanter çiçeği, Alaçay, Boyalık otu, Çayotu, Kantarot,	Leaf and Flower Stem Aerial part	Inf./Dec., Int. Dec., Int. +Olive oil, Mac., Int.	(15; 67) (47) (10)
H. scabrum L.	Hypericaceae	Sic, Karahasan çayı, Kulilka zar, Sancı otu, Mayasılotu	Flowering branch Aerial part	Inf., Int. Inf./Dec., Int.	(20) (66; 68)
H. triquetrifolium Turra	Hypericaceae	Bahtof, Bantof, Kantaron, Şeytanevi	Aerial part	Inf., Int.	(10)

Juglans regia L.	Juglandaceae	Ceviz	Fruit Leaf	+Olive oil, Mac., Eaten Dec., Int.	(63) (44)
Juniperus drupacea Lab.	Cupressaceae	Andız ağacı	Fruit	Molasses, In the morning on an empty stomach, Int.	(8)
J. oxycedrus L. subsp. *oxycedrus*	Cupressaceae	Katran ardıcı	Fruit	Eaten	(69)
Laurocerasus officinalis Roem.	Rosaceae	Karayemiş	Leaf	Inf., Int.	(70)
Laurus nobilis L.	Lauraceae	Akdeniz defnesi, Tenel, Tehnel, Defne	Seed	Dec., Int.	(44)
Lavandula stoechas L. subsp. *cariensis* (Boiss.) Rozeira	Lamiaceae	Karabaş, Çalı kekiği, Mor kekik	Leaf	Inf., Int.	(62)
L. stoechas L. subsp. *stoechas*	Lamiaceae	Karahan, Karabaş, Karabaş otu, Dede burnu, Karaburun, Morbaş	Aerial part Flowering branch	Dec., Int. Inf., Int. Inf., Int.	(44) (9) (24)
Liquidambar orientalis Miller.	Hamamelidaceae	Günlük, Sığala, Günnük	Balsam	Oil, Int.	(44; 60)
Lotus corniculatus L. subsp. *corniculatus*	Fabaceae	Gazalboynuzu	Aerial part	Dec., Int.	(30)
Malabaila lasiocarpa Boiss.	Apiaceae	Bijberhik	Fruit and leaf	Inf., Int.	(20)
Malva neglecta Wallr.	Malvaceae	Tolk, Tolga küvi, Tolga badinga, Ebegümeci, Ebem ekmeği, Gömeç	Aerial part	Dec., Int. Eaten	(20; 71; 72) (73)
M. sylvestris L.	Malvaceae	Ebegümeci, Kabaot, Usluebegüm eci, Develik, Kedigözü, Evelik, Gömeç	Leaf	Dec., Int. Cooked, Eaten	(54) (10)
M. parviflorum A. Fisch. & C.A. Mey. subsp. *parviflorum*	Lamiaceae		Aerial part		(50)
Marrubium vulgare L.	Lamiaceae	Keklik otu	Flowering branch	Inf., Int.	(45)
Matricaria aurea (L.) Schultz	Asteraceae	Beybunıc, Gayeka seva, Gihake seva, Çiçeğe zer	Aerial part	Dec., Int.	(73)
M. chamomila L. var. *recutita* (L.) Grierson	Asteraceae	Papatya, Papatça, Pobeç, Koyungözü	Capitulum Whole plant	Inf., Int. For babies, Dec., Int.	(9; 40; 74) (52)
Melissa officinalis L.	Lamiaceae	İliman, Limon otu, Oğul otu	Aerial part	Inf., Int.	(10)
M. officinalis L. subsp. *altissima* (Sm.) Arcangeli	Lamiaceae	Oğulotu, Saçkıran, Yabani dereotu, Yaban ısırganı, Melisa, Limon otu	Leaf	Cooked, +Starch, Formed into tablets, Take a tablet before meals Inf., Int.	(47) (24)

Mentha aquatica L.	Lamiaceae	Dağ nanesi	Aerial part	Inf., Int.	(8)
M. arvensis L.	Lamiaceae	Nane, Narpız	Root	Dec., Int.	(19)
M. longifolia (L.) Hudson subsp. *longifolia*	Lamiaceae	Nane, Su nanesi, Deli nana, Yarpuz, Kokulu nane	Leaf	Dec., Int.	(20; 58)
M. longifolia (L.) Hudson subsp. *typhoides* (Briq.)Harley var. *typhoides*	Lamiaceae	Nana, Nane, Yarpız, Dere nanesi, Köpek nanesi	Aerial part Leaf	Inf., Int. Crushed, Int.	(24) (41)
M. x piperita L.	Lamiaceae	Nane, Nana, Bahçe nanesi, Anuk	Leaf	Inf., Int.	(16; 75)
M. pulegium L.	Lamiaceae	Narpuz, Yarpuz, Filiskin	Aerial part	Inf., Int. Aromatic water, Int.	(24) (44)
M. spicata L. subsp. *spicata*	Lamiaceae	Nane, Yarpuz	Branch Leaf Aerial part	Dec., Int. Inf., Int.	(8; 44) (9; 29; 47)
Micromeria myrifolia Boiss. & Hohen	Lamiaceae	Dağçayı, Kokarot, Ayaklı kekik	Aerial part	Crushed, Int. Inf., Int.	(41) (10)
Momordica charantia L.	Cucurbitaceae	Kudret narı, Cennet narı, Çenetnarı	Fruit Seed	6 month wait in olive oil, +1 spoon honey, In the morning on an empty stomach, Eaten Young red seed +honey, Eaten	(44) (24; 62)
Nasturtium officinale R.Br.	Brassicaceae	Su gedimesi, Dere gedimesi, Gadime, Kaz aya, Gaz ayaQije, Tujik, Su teresi, Deli kereviz, Su kazayağı	Aerial part	Cooked, Int. Inf., Int.	(25) (74)
Nigella sativa L.	Ranunculaceae	Otcam, Ökçem otu, Çör otu, Çörek otu	Seed	Dec., Int.	(49)
Ocimum basilicum L.	Lamiaceae	Reyhan, Fesleğen	Branch and leaf	Dec., Int.	(48; 60)
Origanum dubium Boiss.	Lamiaceae	Eşekkekiği, Sakarkekik	Aerial part	Inf., Int.	(12)
O. majorana L.	Lamiaceae	Mercanköşk	Leafy and Flowering branch	Dec., Int.	(9; 60)
O. onites L.	Lamiaceae	Kekik, Eşek kekiği, Beyaz kekik, Deli kekik, Kara kekik, Taş kekiği, Akbaş kekik	Aerial part	Inf., Int.	(9)
O. syriacum L.	Lamiaceae	Dağ nanesi	Stem	Dec., Int.	(8)

O. vulgare L. subsp. *viride* (Boiss.) Hayek	Lamiaceae	Hoş otu, Kaya kekiği, Taş kekik, Sarı kekik, Tapan kekiği, Yayla kekiği, Dağ kekiği	Aerial part	Inf., Int.	(76)
Paliurus spina-christii Miller	Rhamnaceae	Mağaylun, Çaltı, Çaltı dikeni, Kara çaltı, Çakırdikeni	Fruit	Inf./Dec., Int.	(24; 40; 63)
Peganum harmala L.	Zygophyllaceae	Üzerlik, Harmal, Boğir, Bohol, Mekeç, Nazarlık otu	Seed	Dec./Inf., Int.	(77)
Persica vulgaris Mill.	Rosaceae	Şeftali ağacı	Seed		(39)
Phlomis armeniaca Willd.	Lamiaceae	Çalba, Emecen	Flower	Dec., Int.	(20)
P. lycica D.Don	Lamiaceae	Çalba, Kızıl çalba, Tüylü çalba	Aerial part	+Tarhana, Mush, Ext.	(44)
Phyllitis scolopendrium (L.) Newn.	Aspleniaceae	Geyikdili eğreltisi, Gernana	Aerial part	Dec., Int.	(22; 23)
Pinus brutia Ten	Pinaceae	Kızılçam, Çam, Şam, Sakız çamı	Thin membrane between the shell and the body Resin	Eaten Chewed +Water, Int.	(46) (10)
Pistacia khinjuk Stocks	Anacardiaceae	Gezan, Bıttım	Stem resin	Eaten	(43)
P. terebinthus L. subsp. *palaestina* (Boiss.) Engler	Anacardiaceae	Çöğüre, Menengiç, Çıtırmak, Sakızlık	Fruit	Dec., Int.	(48; 58)
Plantago coronopus L.subsp. *coronopus*	Plantaginaceae	Çayotu	Aerial part	Inf., Int.	(32)
P. lagopus L.	Plantaginaceae	Sinirli ot, Karabaş otu	Aerial part	Inf., Int.	(76)
P. lanceolata L.	Plantaginaceae	Giyamambel, Belgpanık, Giyabironug, Sinirliot, Kasık otu, Damarlıot, Bobvitsa	Leaf	Eaten/Dec., Int.	(20; 40; 43; 49)
P. major L. subsp. *intermedia* (Gilid.) Lange	Plantaginaceae	Sinirotu, Çıbanotu, Kırkdamar otu, Sinirliot	Aerial part Leaf	Mush, Ext. Inf., Int.	(62) (63)
P. major L.subsp. *major*	Plantaginaceae	Balazağva, Damarlıot, Damarotu, Kırksinir otu, Sinirliot, Beşdamar otu	Leaf	Inf./Dec., Int.	(47; 78)
Polygonum avicularia L.	Polygonaceae	Kuş ekmeği	Leaf	Dec., Int.	(28)
Portulaca oleracea L.	Potulacaeceae	Semizotu, Pirpirim	Aerial part	Dec., Int.	(71)
Potentilla reptans L.	Rosaceae	Mayasıl otu, Reşatın otu	Leaf	Inf., Int.	(68)
Punica granatum L.	Punicaceae	Hınar, Nar, İnar, Hicaz narı	Fruit	Eaten	(79)

Pyrus syriaca Boiss. var. *syriaca*	Rosaceae	Adi armut, Şekok	Fruit	Inf., Int.	(30)
Quercus coccifera L.	Fagaceae	Pelit, Piner	Seed	Cooked, Eaten	(59)
Q. pubescens Willd.	Fagaceae	Meşe	Aerial part	Dec., Int.	(60)
Ranunculus pinardii (Stev.) Boiss.	Ranunculaceae	Gazyağı otu, Karaz	Aerial part	Inf., Int.	(30)
Reseda lutea L. var. *lutea*	Resedaceaea	Paryavşanı, Eşek kendimesi, Eşek turpu, Muhabbet çiçeği	Root	Peeled, Chewed	(35; 80)
Rhus coriaria L.	Anacardiaceae	Sumak, Somak, Somak otu	Leaf Fruit	Dec./Inf., Int. Eaten Dec., Int.	(49) (10) (10)
Rosa canina L.	Rosaceae	Kuşburnu, İt burnu, Öküzgözü, Yaban gülü, Kozalak	Fruit	Syrup, Int.	(59)
R. sempervirens L.	Rosaceae	Gülbüzük, İtburnu, Kuşburnu, Sıtmagülü	Fruit	Dec., Int.	(45)
Rubus sanctus Schreber	Rosaceae	Böğürtlen, Börtlen, Orman üzümü, Orman gülü, Kür, Kocagız kürü	Leaf Fruit	Inf., Int. Inf., Int. Inf., Int.	(75) (44; 63) (62)
Rumex patientia L.	Polygonaceae	Tırşıka karan, Ebelik, Kalmuk çayı, Yılkıkulak	Fruit	Dec., Int.	(68)
Salvia cryptanta Monbret & Aucher ex Bentham	Lamiaceae	Yakıs ablası, Ada çayı, Ballık otu, Şabla, Sarı şalba, Kayışkıran, Kokulu ot	Leaf	Dec., Int.	(80)
S. fruticosa Miller.	Lamiaceae	Adaçayı, Almageyik, Şapla, Yakı otu	Leafy branch	Inf., Int.	(44)
S. sclarea L.	Lamiaceae	Adaçayı	Flowering branch	Dec., Int.	(38)
S. tomentosa Miller	Lamiaceae	Adaçayı, Şaplağa, Yakı otu, Şalpa, Sancı otu, Ellik otu, Kancık, Hoşaflama, Moşafla, Muşapla	Leaf	Inf., Int.	(33; 81)
S. verticulata L. subsp. *amasiaca* Bornm.	Lamiaceae	Yağlıkara	Leaf	Inf., Int.	(13)
S. viridis L.	Lamiaceae	Yeşilbaş, Çoban döşeği, Grip çayı	Seed Aerial part	Eaten Dec., Int.	(82)
Sambucus ebulus L.	Caprifoliaceae	Otsu mürver, Yir otu, Ayıboğan, Şahmelek otu, Piran, Lüver, Lor, Mürver, Memer, Sultan otu, Buzka	Fruit	Eaten on an empty stomach	(47)
Satureja cuneifolia Ten.	Lamiaceae	Kara kekik, Boncuklu çay	Aerial part	Inf., Int.	(41)

S. hortensis L.	Lamiaceae	Kekik	Leaf	Inf., Int.	(83)
Scorzonera pseudolanatae Grossheim	Asteraceae	Parım, Tulu	Tuber	Eaten	(37)
Sideritis arguta Boiss. & Heldr.	Lamiaceae	Dağ çayı	Aerial part	Inf., Int.	(41)
S. bilgerana P.H. Davis	Lamiaceae	Dağ çayı, Yayla çayı, Hava otu, Altınotu	Aerial part	Inf., Int.	(8; 41; 49)
S. caesarea Duman, Aytaç & Başer	Lamiaceae	Dağ çayı	Aerial part	Dec., Int.	(68)
S. congesta P.H.Davis	Lamiaceae	Dağ çayı	Aerial part	Inf., Int.	(41)
S. hispida P.H.Davis	Lamiaceae	Dağ çayı	Aerial part	Inf., Int.	(41)
S. montana L.	Lamiaceae	Dağ çayı, Yayla çayı	Leaf and Flower	Inf., Int.	(55)
S. stricta Boiss. & Heldr. Apud Bentham	Lamiaceae	Dağ çayı	Flower		(84)
Smyrnium rotundifolium Mill.	Apiaceae	Maydanoz	Fruit	Dec., Int.	(10)
Sorbus domestica L.	Rosaceae	Üvez, Börtlücan	Cortex	Dec., Int.	(40)
S. torminalis (L.) Crantz var. *torminalis*	Rosaceae	Böğürtlecen	Leaf	Dec., Int.	(40)
Spinacia oleracea L.	Amaranthaceae	Ispanak	Aerial part	Cooked, Eaten	(62)
Stachys cretica L. subsp. *lesbiaca* Reichb.fil	Lamiaceae	Deli adaçayı	Aerial part	Inf., Int.	(9)
S. cretica L. subsp. *smynaea* Rech.f.	Lamiaceae	Bozot, Sarı çiçekli kekik, Dağ çayı	Sprout	Inf., Int.	(24)
S. iberica Bieb. subsp. *stenostacya* (Boiss.) Rech. Fil.	Lamiaceae	Dağ çayı	Aerial part	Dec., Int.	(30)
S. kurdica Boiss.& Hohen var. *kurdica*	Lamiaceae	Bareşa, Kulikzer	Aerial part	Inf., Int.	(20)
Tanacetum cadmeum (Boiss.) Heywood subsp. *cadmeum*	Asteraceae	Ayvadana, Ayvadanası	Fruit, Capitulum, Aerial part	Inf., Int.	(14)
Teucrium chamaedrys L. subsp. *lydium* O Scwarz	Lamiaceae	Kısamahmut otu	Flowering and leafy branch	Inf., Int.	(45)
T. chamaedrys L. subsp. *sinuatum*(Celak) Rech.F.	Lamiaceae	Keselmehmut, Derman	Aerial part	Dec., Int.	(35)
T. divaricatum Sieber subsp. *divaricatum*	Lamiaceae	Mürcüotu, Böceotu, Buhurcuoğlu otu	Aerial part	Dec., Int.	(44)
T. flavum L.	Lamiaceae	Bodur Mahmut	Leaf, Flower	Int. Int.	(18)
T. polium L.	Lamiaceae	Neman, Bovijena şin, Koyun otu, Bozot, Meryem otu, Kesemehmut, Ülser yavşanı, Meryemkot, Peyuşağı, Per yavşağı, Mırda, Mırmırot, Talık otu, Acıot	Aerial part Leaf Branch	Dec., Int. Dec., Int. Inf., Int. Inf., Int. for kids Inf., Int. Dec., Int.	(20; 69; 73; 80) (43) (85) (29; 75) (8) (15)
Thymbra sintenisii Bornm & Aznav subsp. *sintenisii*	Lamiaceae	Zatar	Aerial part	Dec., Int.	(73)
T. spicata L. *var. spicata*	Lamiaceae	Seyil kekiği, Kara kekik, Karaçekme, Zahter, Eşek zahteri, Kırçayı, Bayır kekiği, Karabaş otu, Kaya kekiği, Şeker otu	Aerial part Leaf	Inf., Int. Dec., Int.	(9; 37; 62) (82)
Thymus atticus Celak	Lamiaceae	Keklikotu	Aerial part	Oil, Int.	(63)

T. conoviridis Jalas	Lamiaceae	Kekik otu, Keklik otu	Aerial part	Inf., Int.	(65)
T. fallax Fisch. & Mey.	Lamiaceae	Catır, Catri	Aerial part	Dec., Int.	(66; 86)
T. leucoibrum Hausslan & Velen	Lamiaceae	Kekik	Aerial part	Dec./Inf., Int.	(77)
T. longicaulis subsp. *chaubardii* (Rihb.f.)Jalas	Lamiaceae	Kekik, Akbaşlı ot, Güve otu, Yer kekiği	Leaf	Inf., Int.	(33)
T. longicaulis C. Presl subsp. *longicaulis* var. *longicaulis*	Lamiaceae	Keklikotu, Kekik, Kekikotu	Aerial part	Inf., Int.	(40; 63)
T. longicaulis C. Presl subsp. *longicaulis* var. *subisophyllus* (Borbas) Jalas	Lamiaceae	Taş kekiği, Keklikotu	Aerial part	Dec., Int.	(10)
T. sipyleus Boiss. subsp. *sipyleus* var. *sipyleus*	Lamiaceae	Kekik	Aerial part	Dec., Int.	(68)
T. zygioides Griseb.var. *lycaonicus* (Celak.) Ronniger	Lamiaceae	Kekik, Bodur kekik, Kaya kekiği	Aerial part	Inf., Int.	(9)
T. zygoides Griseb. var. *zygoides*	Lamiaceae	Kekik, Dağ kekiği, Bayır çayı, Kaya kekiği, Şeker otu, Taş kekiği	Aerial part	Inf., Int.	(24; 63)
Tilia argentea Desf. ex. DC.	Tiliaceae	Ihlamur	Leaf and Flower	Dec., Int.	(9; 33; 62)
Tragopogon aureus Boiss.	Asteraceae		Leaf	Eaten	(86)
T. coloratus C.A. Meyer	Asteraceae	At yemliği	Aerial part	Eaten	(30)
T. dubius Scop.	Asteraceae	Yemlik	Aerial part	Eaten	(30)
T. pratensis L. subsp. *orientalis* (L.) Celak	Asteraceae	At yemliği	Aerial part	Eaten	(30)
T. pterocarpus DC.	Asteraceae	Yemlik	Aerial part	Eaten	(30)
T. reticulatus Boiss. & Huet	Asteraceae	At yemliği	Aerial part	Eaten	(30)
Tribulus terrestris L.	Zygophyllaceae	Pıruğacuz, Çoban çökerten, Demirdikeni, Kızılbacak, Demirotu, Sarı pıtrak	Aerial part	Dec., Int.	(73)
Trifolium hybridum L. var *anatolicum* Boiss.	Fabaceae	Yonca	Aerial part	Dec., Int.	(10; 60)
T. pratense L. var. *pratense*	Fabaceae	Yonca	Aerial part	Dec., Int.	(48)
T. repens L. var. *giganteum* Lag-Foss.	Fabaceae	Sebelk, Nefel	Aerial part	Dec., Int.	(43)
Tripleurospermum monticolum (Boiss. & Huet.) Bornm.	Asteraceae	Papatya	Flower	Inf., Int.	(36)
Urtica dioica L.	Urticaceae	Acı ısırgan, Büyük ısırgan otu, Dezınk, Gezınk, Cızlağan, Dızlağan, Kopriga	Root	Dec., Int.	(40; 46; 58; 85; 87; 88)
U. pilulifera L.	Urticaceae	Isırgan, Istırgaç	Seed Leaf	+*Lepidium sativum* and honey, Eaten Inf., Int.	(62) (54)
U. urens L.	Urticaceae	Cızlağan, Dızlağan, Isırgan, Isıran	Leaf	Dec., Int.	(89)
Verbascum cheiranthifolium Boiss. var. *cheiranthifolium*	Scrophulariaceae	Masicerk, Bozkulak, Gırç, Calba, Yalangı	Flower	Dec., Int.	(86; 68)
V. macrurum Ten	Scrophulariaceae	Sığır kuyruğu	Flower	Inf., Int.	(53)
Veronica chamaedrys L.	Scrophulariaceae		Flowering branch	Dec., Int.	(45)

Viola occulta Lehm.	Violaceae	Menekşe	Flowering leaf	Dec., Int.	(19)
V. odorata L.	Violaceae	Bınev şok	Whole plant	Dec., Int.	(43)
Vitex agnus-castus L.	Verbenaceae	Hayıt, Ayıt	Fruit	Eaten	(9; 24)
Xeranthemum clindraceum Sm.	Asteraceae	Duman otu	Aerial part	Inf., Int.	(10)
Zea mays L.	Poaceae	Mumet, Mısır	Stylus maydis	Dec., Int.	(40)
Zizyphus jujuba Mill.	Rhamnaceae	Hinnap, Hünnap, Günnap	Fruit	Eaten	(62)

Int: Internal, Ext: External, Dec: Decoction, Inf: Infusion, Mac: Maceration

2. Material and Methods

This study is prepared by searching thesis at the National Higher Education Center and ethnobotanical studies conducted in various parts of the Turkey with selecting regional plants used for stomachache.

3. Result

Because of its geographical features, Turkey has a very dense plant variety and the use of medicinal plants for the treatment of various diseases among the public since ancient times is widespread. Traditional treatment methods are recorded through ethnobotanical researches and it is aimed to contribute to drug development studies. This study, prepared by screening of ethnobotics researches, revealed 221 taxa that were used against stomachache among the population. These plants are mainly from Lamiaceae, Asteraceae, Rosaceae, Apiaceae, Hypericaceae and Fabaceae (Figure 1).

Volatile oils found intensively in families such as Lamiaceae, Asteraceae, Rosaceae, Apiaceae contain compounds with stomach related effect. For this reason, it is common for use in stomach disorders. The most commonly used parts of the plants for treatment are herb, leaf, flower, fruit, root and seed parts. These parts include the preparation of a decoction or infusion in the form of tea, raw or cooked, then eaten, mixed with honey, or macerated with olive oil, in the treatment of stomachache; The upper parts of some plants are put on the stomach after they are made into mush and they are used externally. We hope that this work will contribute to the development of new medicines to be used in the treatment of stomach ache.

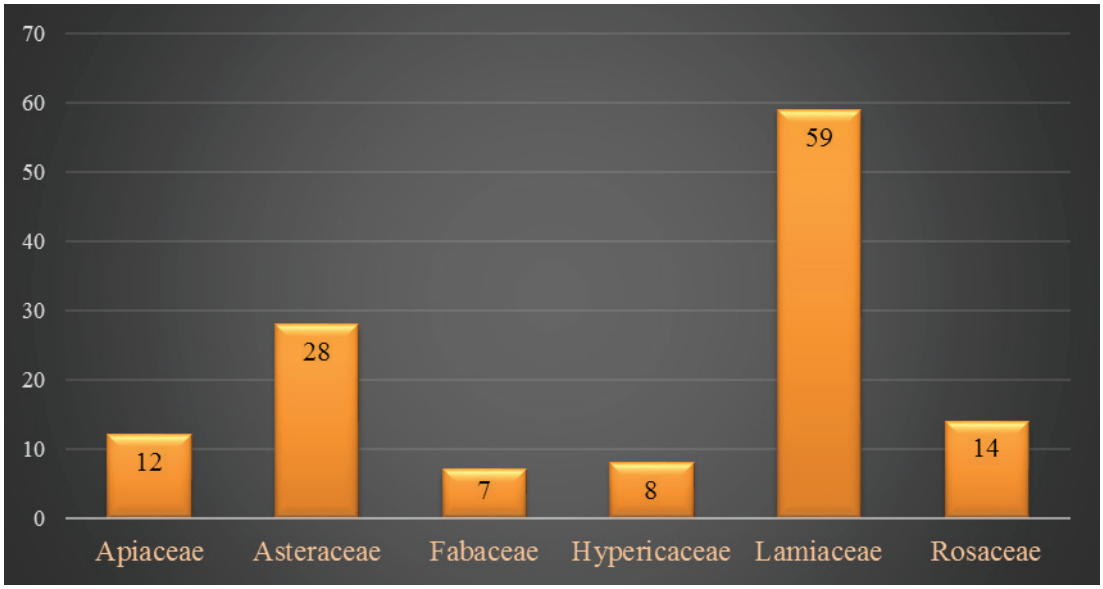

Figure 1. Graph of main families used in traditional treatment against stomachache in Turkey.

Türkiye'de geleneksel halk ilacı olarak kullanılan ağrı kesici etkili bitkiler-I MİDE AĞRISI

ÖZ

Türkiye'de çeşitli hastalıkların tedavisinde halk tarafından kullanılan birçok bitki bulunmaktadır. Bu bitkiler ile hazırlanan halk ilaçlarının hangi tedavide, nasıl kullanıldığı nesilden nesile aktarılarak günümüze kadar ulaşmıştır. Yapılan etnobotanik araştırmalar ile geleneksel tedavi yöntemleri kayıt altına alınmakta ve bu bilgilerin ilaç geliştirme çalışmalarına katkı sağlaması hedeflenmektedir. Etnobotanik araştırmaların taranması ile hazırlanan bu çalışmada Türkiye'de geleneksel tedavide mide ağrısına karşı kullanılan 221 taksona ulaşılmış ve bu taksonların bilimsel ve yöresel isimleri, familyaları, kullanılan kısımları ve mide ağrısında kullanılış şekilleri ile ilgili bilgiler derlenmiştir. Yapılan araştırmaya göre mide ağrısına karşı kullanılan bitkilerin yaygın olarak bulundukları familyalar Lamiaceae (59 takson), Asteraceae (28 takson), Rosaceae (14 takson), Apiaceae (12 takson), Hypericaceae (8 takson) ve Fabaceae (7 takson) familyalarıdır. Bu familya bitkilerinin mide ağrısına karşı kullanılmalarının başlıca sebebi, midevi etkiye sahip uçucu yağları içermeleridir. Bitkilerin tedavide en çok kullanılan kısımları sırasıyla topraküstü kısımları, yaprak, çiçek, meyve, kök ve tohum kısımlarıdır. Kullanılan kısımlar, dekoksiyonu veya infüzyonu hazırlanarak çay halinde, çiğ veya pişirildikten sonra yenerek ya da bal ile karıştırılmak suretiyle dahilen; bazı bitkilerin topraküstü kısımları ise lapa haline getirildikten sonra mide üzerine konarak haricen mide ağrısı tedavisinde kullanılmaktadır.

Anahtar kelimeler: Mide ağrısı; geleneksel tedavi; tıbbi bitkiler; Türkiye.

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