

ORIGINAL RESEARCH

Folk medicinal plants of Silivri (İstanbul, Turkey)

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ABSTRACT: In this study, the folk medicinal plants of Silivri (İstanbul) were researched. During the field works, the information were obtained from experienced adults and patients by personal interviews and the specimens of the plants were collected. The plant specimens are kept in the Herbarium of the Faculty of Pharmacy, Marmara University. As a result of identification of the plant specimens, 35 species used as a traditional folk medicine in Silivri, have been determined. Among them 25 species are wild and 10 species are cultivated plants. These plants and their local usage in treatment are presented in a table in the text. The plants are mostly used for stomach ailments, cough, hemorrhoid, rheumatism, cold, eczema and diabetes.

KEY WORDS: Folk medicine, medicinal plants, Silivri, İstanbul, Turkey.

INTRODUCTION

Silivri is situated in the European part of İstanbul (Turkey) and has an area of 860 km². It has 8 sub-district, 13 villages (Figure 1). Silivri is surrounded by Çatalca (İstanbul) from the north, the Marmara Sea from the south, Çorlu and Marmara Ereğlisi (Tekirdağ) from the west and Büyükçekmece (İstanbul) from the east (1).

This is the first comprehensive ethnobotanical research realized between 2008-2010. However, this study includes only the plants used in traditional folk medicine.

MATERIAL AND METHODS

The information about the various data (local names, part(s) of plants used, ailments treated, therapeutic effect, methods of preparation, methods of administration and record place) were obtained from experienced adults and patients by personal interviews.

The plant specimens are kept in the Herbarium of the Faculty of Pharmacy, Marmara University (MARE). The "Flora of Turkey and the East Aegean Islands" (2) was mainly used for the identification of the plants.

During the field works, all the settlements (21 including 13 villages) were visited. They are listed below, with a reference number for the record place of the local information.

1. Büyükçavuşlu (center) 2. Çanta (center), 3. Değirmenköy (center), 4. Gümüşyaka (center), 5. Kavaklı (center), 6. Ortaköy (center), 7. Silivri

(center) 8. Selimpaşa (center), 9. Akören, 10. Bekirli, 11. Beyciler, 12. Büyükkılıçlı, 13. Büyüksinekli, 14. Çayırdere, 15. Çeltik, 16. Danamandıra, 17. Fener, 18. Kurfallı, 19. Küçüksinekli, 20. Sayalar, 21. Seymen.

This study is carried out according to the previous investigations (3-13) in our department.

RESULTS AND DISCUSSION

According to the results of identifications of the specimens, 35 species are being used as folk medicine in Silivri. Among them 25 species are wild and 10 species are cultivated plants. These are presented in Table-1 arranged in alphabetical order of their botanical names with the relevant information.

The folk medicinal plants are mostly used for stomach ailments, cough, hemorrhoid, rheumatism, cold, eczema and diabetes.

Decoction and infusion are the methods mostly used for the preparation of the folk medicine.

Helleborus orientalis and *Juglans regia* are used only in animal treatment.

The comparison of the folk medicinal plants recorded in the ethnobotanical studies which were made in the European part of Turkey (8, 12, 14, 15, 16) and in the Asian part of İstanbul (5) is presented in Table 2.

According to Table 2, *Echallium elaterium*, *Hypericum perforatum*, *Malva sylvestris* *Paliurus spinachristi*, *Prunus spinosa* subsp. *dasyphylla*, and

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TABLE 1. Folk medicinal plants of Silivri (Istanbul, Turkey)

Botanical name, Family and Specimen number	Local name	Plant Part used	Ailments treated/ Therapeutic effect	Preparation	Administration, Dosage / Record place
* <i>Alcea rosea</i> L. (Malvaceae), MARE 11397	Hatmi, Karatatma	Flowers & Leaves	Aşırma	Infusion	Int. (10)
<i>Anthemis cotula</i> L. (Asteraceae), MARE 11382	Papatya, Pirelik	Capitulum	Abdominal pain	Infusion	Int. (5, 9, 12)
* <i>Cerasus avium</i> (L.) Moench (Rosaceae), MARE 11194	Kiraz	Fruit stalk	Digestive	Infusion	Int. (12)
<i>Cornus mas</i> L. (Cornaceae), MARE 11312	Kızılcık, Köpek kızılcığı	Fruits	Diarrhea	—	Eaten (16)
<i>Cornus sanguinea</i> L. (Cornaceae), MARE 11279	Kızılcık, Köpek kızılcığı	Fruits	Diarrhea	—	Eaten (16)
* <i>Cydonia oblonga</i> Miller (Rosaceae), MARE 11406	Ayva	Leaves	Cough	Infusion	Int. (18)
<i>Ecballium elaterium</i> (L.) A. Rich. (Cucurbitaceae), MARE 11385	Acı kavun, Şeytan kavunu	Leaves Roots Fruit juice	Stomachache Rheumatism Eczema Hepatitis	Infusion Infusion Decoction —	Int. (17) Int. (18) Ext. (9, 17) Dropped into the nostrils (5, 9, 10) Dropped into the nostrils, 1-2drop(s) (9, 10) Ext. (17, 18)
<i>Equisetum telmateia</i> Ehrh. (Equisetaceae), MARE 11386	Kırkkilit, Su otu	Fruit Whole plant Whole plant	Rheumatism Kidney stones Stomachache	Oleat Infusion Infusion	Int. (9, 18) Int. (18)
<i>Ficus carica</i> L. subsp. <i>carica</i> (Moraceae), MARE 11273, 11372	İncir	Latex	Wart	—	Ext. (1, 3, 4, 7, 9, 10, 11, 15, 16, 18, 19)
<i>Fraxinus angustifolia</i> Vahl. subsp. <i>oxycarpa</i> (Bieb. ex Willd.) Franco & Rocha Afonso (Oleaceae), MARE 11298, 11388	Dişbudak	Leaves Flowering branches	Abscess Prostate ailments	— Infusion	Wrapped in a cloth, ext. Int. (20)
<i>Heleborus orientalis</i> Lam. (Ranunculaceae), MARE 11287, 11316	Babatire, Kara ot	Roots	Cold (for animal)	Crushed	Inserted in ear for 2 hours (14, 16, 20)
<i>Hypericum perforatum</i> L. (Hypericaceae), MARE 11410	Kantaron	Roots Flowering branches	Immunostimulan (for animal) Diabetes	Crushed Put into water for a while	Added into the fodder (16) Int., before breakfast (18)
<i>Hypericum montbretii</i> Spach (Hypericaceae), MARE 11318	Kantaron	Flowering branches	Stomachache	Put into water for a while Infusion	Int., before breakfast (17, 18) Int. (19)
* <i>Juglans regia</i> L. (Juglandaceae), MARE 11393	Ceviz	Immature fruits	Wound (for animal)	Crushed	Ext. (9)
<i>Malva sylvestris</i> L. (Malvaceae), MARE 11205, 11269, 11378, 11311	Ebe gümeçi	Flowers & Leaves Flowers & Leaves Leaves	Stomachic Hemorrhoid Intestinal diseases	Infusion Infusion Infusion	Int. (8) Int. (12) Int. (10)
<i>Matricaria chamomilla</i> L. var. <i>recutita</i> (L.) Grierson (Asteraceae), MARE 11130	Papatya	Capitulum Capitulum	Cough Sore throat	Infusion Infusion	Int. (9, 10) Int. (12)
* <i>Mentha spicata</i> L. subsp. <i>spicata</i> (Lamiaceae), MARE 11340	Yabani nane	Leaves	Stomachache	Infusion	Int. (4, 6, 7, 12)
* <i>Mespilus germanica</i> L. (Rosaceae), MARE 11320, 11294, 11408, 11307	Döngel Muşmula	Leaves Leaves	Aşırma Hemorrhoid	Infusion Boiled in water	Int. (10) Stream bath (18)
* <i>Morus alba</i> L. (Moraceae), MARE 11401, 11402	Dut	Fruits	Oral candidiasis (for babies)	Boiled in water (+sugar)	Dropped into the mouth (18)
<i>Paliurus spina-christi</i> Miller (Zygophyllaceae), MARE 11377, 11404	Draga diken, Karaçalı	Fruits	Cough	Infusion	Int. (18)

TABLE 1. Folk medicinal plants of Silivri (Istanbul, Turkey)

Botanical name, Family and Specimen number	Local name	Plant Part used	Ailments treated/ Therapeutic effect	Preparation	Administration, Dosage / Record place
<i>Prunus spinosa</i> L. subsp. <i>dasyphylla</i> (Schur) Domin (Rosaceae), MARE 11375	Güvem eriği, Yabani erik	Immature fruits	Diabetes	Infusion	Int. (18)
<i>Pteridium aquilinum</i> (L.) Kuhn (Hypolepidaceae), MARE 11277	Eğrelti	Roots	Diuretic	Infusion	Int. (20)
<i>Rosa canina</i> L. (Rosaceae), MARE 11284, 11309, 11409	Köpek gülü, Kuşburnu, Yaban gülü, Yabani gül	Fruits	Cold (for children)	Infusion	Int. (10, 18)
<i>Rubus sanctus</i> Schreber (Rosaceae), MARE 11375	Böğürtlen, Çobanköse, Karamama, Karamuk	Fruits	Diarrhea Stomachache Cough Diabetes	Infusion —	Int. (10) Int. (17) Int. (5, 9) Eaten (16)
<i>Rumex crispus</i> L. (Polygonaceae), MARE 11280, 11328, 11373	Labada	Leaves	Diuretic	Infusion	Int. (12)
<i>Salix alba</i> L. (Salicaceae), MARE 11315	Söğüt	Leaves	Headache	Infusion	Int. (18)
* <i>Salix babyonica</i> L. (Salicaceae), MARE 11399	Salkım söğüt, Söğüt	Leaves	Headache	Infusion	Int. (18)
* <i>Salvia fruticosa</i> Miller (Lamiaceae), MARE 11341	Ada çayı	Leaves	Abdominal pain	Infusion	Int. (12)
<i>Sambucus nigra</i> L. (Caprifoliaceae), MARE 11381	Mülver, Mürver	Flowers	Bronchitis	Infusion	Int. (10)
<i>Teucrium polium</i> L. (Lamiaceae), MARE 11302	Mayaslı otu	Aerial parts	Hemorrhoid	Infusion	Int. (16)
<i>Thymus longicaulis</i> C. Persl subsp. <i>longicaulis</i> var. <i>subisophyllus</i> (Borbás) Jalas (Lamiaceae), MARE 11297	Kekik, Keklik otu	Volatite oil	Toothache	Obtained from flowering branch by steam-water distillation	Ext. (16)
* <i>Tilia argentea</i> Desf. ex DC. (Tiliaceae), MARE 11391	İhlamur	Flowers	Stomachache	Infusion	Int. (14)
<i>Tilia platyphyllos</i> Scop. (Tiliaceae), MARE 11338	İhlamur	Flowers	Cold Sore throat	Infusion Infusion	Int. (2, 6, 8, 9, 12, 16, 18) Int. (6, 12)
<i>Urtica dioica</i> L. (Urticaceae), MARE 11398	Isırgan	Flowers	Cold Sore throat	Infusion Infusion	Int. (9, 12) Int. (9)
<i>Urtica urens</i> L. (Urticaceae), MARE 11209	Isırgan	Aerial parts Leaves Leaves Leaves Leaves	Hemorrhoid Cancer Rheumatism Diuretic Stomachache	Cooked Infusion — Infusion Infusion	Eaten (12) Int. (16) — Int. (12) Int. (18)
		Aerial parts Leaves Leaves Leaves	Hemorrhoid Cancer Rheumatism Diuretic	Cooked Infusion — Infusion	Eaten (12) Int. (16) — Int. (12)
		Leaves Leaves Leaves	Hemorrhoid Cancer Rheumatism	— — —	— — —
		Leaves	Stomachache	Infusion	Int. (18)

*Cultivated plant; + mixed with; Int. = internal use; Ext. = external use.

TABLE 2. The comparison of the folk medicinal plants recorded in the ethnobotanical studies made in the European part of Turkey (8, 12, 14, 15, 16) and in the Asian part of Istanbul (5)

Folk medicinal plants of Siivri	Lalapaşa (Edirne)	Babaeski (Kırklareli)	Kırklareli (except Babaeski)	Tekirdağ	Çataca (Istanbul)	Şile (Istanbul)
* <i>Alcea rosea</i> L.	—	—	—	—	—	—
<i>Antheris cotula</i> L.	—	—	—	—	—	—
* <i>Cerasus avium</i> (L.) Moench	—	—	—	—	—	—
<i>Cornus mas</i> L.	≠	Diarrhea	Diarrhea	—	Diarrhea	—
<i>Cornus sanguinea</i> L. subsp. <i>australis</i> (C.A. Meyer) Jáv.	—	—	—	—	—	—
* <i>Cydonia oblonga</i> Miller	—	Cold Cough	Cold Cough	—	Cold Cough	Cold
<i>Ecballium elaterium</i> (L.) A. Rich.	Sinusitis	Sinusitis Hepatitis Rheumatism eczema	Sinusitis Hepatitis Rheumatism Kidney stones	Hepatitis Rheumatism eczema Kidney stones	Sinusitis Hepatitis	Sinusitis Hepatitis
<i>Equisetum telmateia</i> Ehrh.	Rheumatism	—	—	—	—	Kidney stones
<i>Ficus carica</i> L. subsp. <i>carica</i>	Wart	—	—	—	Wart	Wart
<i>Fraxinus angustifolia</i> Vahl subsp. <i>oxycarpa</i> (Bieb. ex Willd.) Franco & Rocha-Alonso	—	≠	—	—	—	—
<i>Heleborus orientalis</i> Lam.	—	—	—	—	—	—
<i>Hypericum perforatum</i> L.	Diabetes	Stomach ailments	Diabetes Stomachache	—	Stomachache	Diabetes
<i>Hypericum montbretii</i> Spach	≠	—	—	—	—	—
* <i>Juglans regia</i> L.	≠	—	≠	—	≠	≠
<i>Malva sylvestris</i> L.	Hemorrhoid	Stomach ailments	≠	≠	≠	≠
<i>Matricaria chamomilla</i> L. var. <i>recutita</i> (L.) Grierson	≠	≠	Cough Sore throat	—	—	Cough
* <i>Mentha spicata</i> L. subsp. <i>spicata</i>	Stomachache	—	—	—	—	—
* <i>Mespilus germanica</i> L.	—	≠	≠	—	—	≠
* <i>Morus alba</i> L.	≠	≠	—	—	≠	—
<i>Paliurus spina-christi</i> Miller	—	≠	≠	Cough	≠	≠
<i>Prunus spinosa</i> L. subsp. <i>dasyphylla</i> (Schut) Domin	Diabetes	Diabetes	Diabetes	Diabetes	Diabetes	Diabetes
<i>Pteridium aquilinum</i> (L.) Kuhn	—	—	≠	—	—	—
<i>Rosa canina</i> L.	Cold	Cold	Cold	Stomachache	≠	Stomachache
<i>Rubus sanctus</i> Schreber	≠	≠	—	Diarrhea	≠	Cough
<i>Rumex crispus</i> L.	≠	—	≠	—	≠	—
<i>Salix alba</i> L.	—	—	Headache	—	—	—
* <i>Salix baby/onica</i> L.	—	—	—	—	—	≠
* <i>Salvia fruticosa</i> Miller	—	—	—	≠	—	—
<i>Sambucus nigra</i> L.	≠	—	Bronchitis	Bronchitis	≠	—
<i>Teucrium polium</i> L.	Hemorrhoid	—	≠	≠	—	—
<i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> var. <i>subisophyllus</i> (Borbás) Jalas	≠	Stomach ailments	≠	—	—	Stomachache
<i>Tilia argentea</i> Desf. ex DC.	—	Cold	—	≠	Cold	Cold
* <i>Tilia platyphyllos</i> Scop.	—	—	Cold	—	—	—
<i>Urtica dioica</i> L.	Stomachache	Stomach ailments Hemorrhoid	Stomachache Hemorrhoid Rheumatism Cancer	—	Stomachache Rheumatism	Hemorrhoid Cancer
<i>Urtica urens</i> L.	≠	—	—	Cancer	—	—

(≠: different usage; —: plants not recorded; *: cultivated plant)



FIGURE 1. Map of Silivri

Rosa canina are cited in six studies. In addition, *Prunus spinosa* subsp. *dasyphylla* is the only plant recorded with the same usage (treatment of diabetes) in all localities. *Alcea rosea*, *Anthemis cotula* and *Cornus sanguinea* subsp. *australis* are only used in Silivri.

In spite of the socioeconomic welfare and well-developed medicinal facilities of Silivri, the local people still use traditional medicine for the treatment of different diseases.

As a result, according to the aim of pharmaceutical ethnobotanical studies traditional knowledge on the folk medicinal plants was recorded by this research made in Silivri. Therefore the transmission of this knowledge from generation to generation is provided. In the mean time, this is also the primary information for the scientific studies will be made on the medicinal plants and health.

Silivri (İstanbul, Türkiye) yöresinin halk ilacı bitkileri

ÖZET: Bu çalışmada Silivri (İstanbul) yöresinin halk ilacı olarak kullanılan bitkileri araştırılmıştır. Bilgiler, arazi çalışmaları sırasında deneyimli yaşlı kimselerden ve hastalardan kişisel görüşmelerle derlenmiş ve yörede kullanılan bitkilerin örnekleri toplanmıştır. Toplanan bu örnekler Marmara Üniversitesi Eczacılık Fakültesi Herbariyumu'nda (MARE) bulunmaktadır. Sonuç olarak bitki örneklerinin teşhisi sonucu Silivri yöresinde 35 bitkinin tedavi amacıyla kullanıldığı saptanmıştır. Bunlardan 25'i yabancı, 10'u ise yörede yetiştirilen bitkilerdir. Bu bitkiler ve bunların tedavideki kullanışları metin içinde tablo halinde sunulmuştur. Bitkiler en çok mide rahatsızlıklarının giderilmesinde, öksürük, hemoroid, romatizma, soğuk algınlığı, egzama ve şeker hastalığı tedavisinde kullanılmaktadır.

ANAHTAR KELİMELELER: Halk ilacı, tıbbi bitkiler, Silivri, İstanbul, Türkiye.

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