

ORIGINAL RESEARCH

Turkish folk medicinal plants, IX: Ovacık (Tunceli)

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ABSTRACT: The aim of this study was made to reveal the plants used as traditional folk medicine in Ovacık (Tunceli). For this purpose, the field works have been done between May 2007-May 2008 in April, May, June and July lasting for 30 days, in total. During this research all the settlement centers (including 33 villages) have been visited, the specimens of the plants used as folk remedies have been collected and the information such as local names, ailments treated or therapeutic effects, plant parts used, method of administration, dosage, duration of treatment have been recorded. The collected plant specimens are kept in the Herbarium of the Faculty of Pharmacy, Marmara University (MARE). As a result of identification of 76 plant specimens, 67 species used as a traditional folk medicine, have been determined. Among them 65 species are wild and 2 species are cultivated plants. These plants and their local usage in treatment are presented in a table in the text. It was found out that the plants recorded in Ovacık are mostly used for cold, diabetes and wound.

KEYWORDS: Folk Medicine, Medicinal Plants, Ovacık, Tunceli, Turkey

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Received:

08.07.2010

Revision:

11.08.2010

Accepted:

03.09.2010

INTRODUCTION

Our research area, Ovacık, is a district of Tunceli that is located on the north west of eastern Anatolia. Ovacık is surrounded by Kemah (Erzincan) from the north, Hozat from the south, Pülümür and city of Tunceli from the east, and Kemah (Erzincan) and Çemişgezek from the west. Munzur and Mercan Mountains form the large portion of the boundaries of these districts (Figure 1).

Ovacık takes its name from the small plain, approximately 74 km², that is located between Munzur and Mercan mountains (Figure 2). The altitude of the center of Ovacık is 1300 m. Ziyaret tepesi (3071 m) is the highest point of the Ovacık district (1). There are several natural lakes in the peaks of Munzur mountains (Figure 3).

MATERIAL AND METHODS

Data was collected via face to face interviews with local healers, experienced adults, and patients. Data included local names, uses/ailments treated, part(s) of plants used, and methods of preparation.

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. All the specimens were collected by A. Dogan.

RESULT AND DISCUSSION

As a result of identification of 76 plant specimens, 67 species used as a traditional folk medicine, have been determined. Among them 65 species are wild and 2 species are cultivated plants. While most of these plants are used solitary some of them are used in mixtures.

In the folk medicinal plants of Ovacık, eight taxa are endemic to Turkey *Allium macrochaetum* subsp. *tuncelianum* (Sivas, Tunceli), *Cephalaria speciosa* (Erzincan, Van, Tunceli), *Convolvulus galaticus* (Amasya, Ankara, Bolu, Burdur, Denizli, Elazığ, Eskişehir, Gaziantep, Kayseri, Konya, Kütahya, Malatya, Mardin, Niğde, Şanlıurfa, Tunceli, Van, Zonguldak), *Iris sari* (Amasya, Çankırı, Elazığ, Erzurum, Gaziantep, Kayseri, Niğde, Sivas, Tunceli) (Figure 4), *Hesperis schischkinii* (Erzincan, Erzurum, Muş, Tunceli) (Figure 5), *Hyacinthus orientalis* subsp. *chionophilus* (Adana, Kahramanmaraş, Kayseri, Sivas, Tunceli), *Origanum acutidens* (Bingöl, Erzincan, Erzurum, Gümüşhane, Kars, Malatya, Sivas, Tunceli), *Tchihatchewia isatidea* (Erzincan, Erzurum, Giresun, Sivas, Tunceli) (Figure 6,7) (2).

TABLE 1. Folk Medicinal Plants of Ovacık (Tunceli-TURKEY)

Botanical name and Voucher specimen	Local Names	Therapeutic effect / Ailments treated	Part(s) used	Methods of preparation	Mode of use
<i>Achillea biebersteinii</i> Afan. (Compositae) MARE 11094	Arı çiçeği, Sarı çiçek	Stomachache Carminative Expectorant	Capitula Capitula Flowers and Leaves	infusion infusion decoction	Int. Int. Int.
<i>Alcea dissecta</i> (Baker) Zoh. (Malvaceae) MARE 10774	Govik	Joint injury	Leaves		Ext., wrapped in a cloth
<i>Alcea excubita</i> Ijlin (Malvaceae) MARE 11097	Amervans	Asthma Expectorant	Leaves Flowers and Leaves	holding hot water infusion	Put on chest Int.
<i>Allium macrochaetum</i> Boiss. et Hausskn. subsp. <i>tuncelianum</i> Kollmann (Liliaceae) MARE 10772, 10821	Dağ sarmısağı	Cold Hypotansive Cancer	Flowers Bulbils Bulbils	infusion	Int. Eaten Eaten
<i>Asphodeline tenuior</i> (Fischer) Ledeb. subsp. <i>tenuiflora</i> (C.Koch) E.Tuzlacı var. <i>tenuiflora</i> (Liliaceae) MARE 10819	Yara otu	Wound	Roots	crushed with <i>Plantago major</i> subsp. <i>major</i> leaves	Ext.
<i>Astragalus brachycalyx</i> Fischer (Leguminosae) MARE 10766	Geven, Keven	Immunostimulant Cancer	Young shoots Gum	crushed (+honey) mixed with honey	Int. Int.
<i>Capsella bursa-pastoris</i> (L.) Medik. (Cruciferae) MARE 10828		Diabetes	Aerial parts	decoction	Int.
<i>Cardamine uliginosa</i> Bieb. (Cruciferae) MARE 10833	Munzur otu	Kidney stones	Aerial parts	infusion	Int.
<i>Celtis tournefortii</i> Lam. (Ulmaceae) MARE 11080	Derdoğan	Diarrhoea	Fruits		Eaten
<i>Centaurea hyalolepis</i> Boiss. (Compositae) MARE 10790	Belhok, Sarı diken	Immunostimulant	Flowers	crushed (+honey)	Eaten
<i>Centaurea solstitialis</i> L. subsp. <i>solstitialis</i> (Compositae) MARE 10762	Belhok, Zerik	Malaria	Aerial parts	decoction	Int.
<i>Cephalaria speciosa</i> Boiss et Kotschy (Dipsacaceae) MARE 11063		Cancer	Flowering branches	decoction	Int.
<i>Colutea cilicica</i> Boiss. et. Bal. (Leguminosae) MARE 11078		Gingival disease	Fruits	infusion	Gargle
<i>Convolvulus galaticus</i> Rostan ex Choisy (Convolvulaceae) MARE 10777	Sarmaşık	Toothache	Flowers	infusion	Gargle
<i>Dipsacus laciniatus</i> L. (Dipsacaceae) MARE 11075		Cancer	Aerial parts	decoction	Int.
<i>Eremurus spectabilis</i> Bieb. (Liliaceae) MARE 10798	Gulık	Diabetes Fungal infection	Roots Leave juice	decoction crushed	Int. Ext.
<i>Euphorbia falcata</i> L. subsp. <i>falcata</i> var. <i>falcata</i> (Euphorbiaceae) MARE 10784	Sütleğen, Yılan otu	Eczema Fungal infection	Latex Latex	crushed	Ext. Ext.

TABLE 1. (Continued)

Botanical name and Voucher specimen	Local Names	Therapeutic effect / Ailments treated	Part(s) used	Methods of preparation	Mode of use
<i>Euphorbia macroclada</i> Boiss. (Euphorbiaceae) MARE 10761	Sütleğen, Yılan otu	Eczema Fungal infection	Latex Latex		Ext. Ext.
<i>Ferula orientalis</i> L. (Umbelliferae) MARE 10808	Çağşir, Kingor	Immunostimulant Stomachache	Whole Plant Inflorescens	decoction infusion	Int. Int.
<i>Ficus carica</i> L. subsp. <i>rupestris</i> (Hauskn.) Browicz (Moraceae) MARE 11069	Yabani incir	Fungal infection Eczema Wound	Latex Latex Latex		Ext. Ext. Put on the ground on wound
<i>Glaucium leiocarpum</i> Boiss. (Papaveraceae) MARE 10775	Gelincik	Headache Diarrhoea	Leaves Flowers	(+ tobacco) decoction	Ext., wrapped in a cloth Int.
<i>Hedysarum syriacum</i> Boiss. (Leguminosae) MARE 11098		Gingival disease	Fruits	infusion (+ lemon juice)	Gargle
* <i>Helianthus tuberosus</i> L. (Compositae) MARE 10787	Yer elması	Diabetes	Tubers		eaten
<i>Heliotropium circinatum</i> Griseb. (Boraginaceae) MARE 11091	Bostan otu	Cancer	Flowering branches	infusion	Int.
<i>Hesperis schischkinii</i> Tzvelev (Cruciferae) MARE 10803		Wound	Roots	mixed with crushed roots of <i>Tchihatchewia isatidea</i> and resin of <i>Pistacia atlantica</i>	Ext.
<i>Hyacinthus orientalis</i> L. subsp. <i>chionophilus</i> Wendelbo (Liliaceae) MARE 10793	Aminot, Sümbül	Anthemorrhagic	Leaves	crushed	Ext., wrapped in a cloth
<i>Inula oculus-christi</i> L. (Compositae) MARE 11096	Yol otu	Kidney stones Urethra infection	Flowering branches Flowering branches	decoction decoction	Int. Int.
<i>Iris caucasica</i> Hoffm. subsp. <i>turcica</i> (Iridaceae) MARE 10820	Sarı nevroz	Cold	Aerial parts	infusion	Int.
<i>Iris sari</i> Schott ex Baker (Iridaceae) MARE 10805	Bahar çiçeği	Cold	Flowers	infusion	Int.
<i>Isatis tinctoria</i> L. subsp. <i>tomentella</i> (Cruciferae) MARE 11070		Wound	Flowers	crushed (+butter)	Ext.
* <i>Juglans regia</i> L. (Juglandaceae) MARE 11351	Ceviz, Güz	Arthralgia Fungal infection Eczema	Leaves Leaves Leaves	Wrapped in a cloth Wrapped in a cloth Wrapped in a cloth	Ext. Ext. Ext.
<i>Medicago minima</i> (L.) Bart. var. <i>minima</i> (Leguminosae) MARE 10817	Gurnik	Cardiac diseases	Fruits	infusion	Int.
<i>Melissa officinalis</i> L. subsp. <i>officinalis</i> (Labiatae) MARE 10769	Kolonya otu, Limon otu	Asthma Disinfectant	Aerial parts Leaves	infusion crushed in hand	Int. Ext.

TABLE 1. (Continued)

Botanical name and Voucher specimen	Local Names	Therapeutic effect / Ailments treated	Part(s) used	Methods of preparation	Mode of use
<i>Mentha longifolia</i> (L.) Hudson subsp. <i>typhoides</i> var. <i>typhoides</i> (Labiatae) MARE 11095	Punk	Asthma Abdominal pain	Aerial parts Aerial parts	decoction decoction (+ honey)	Inhaled Int.
<i>Origanum acutidens</i> (Hand.-mazz.) letsvaart (Labiatae) MARE 10779, 10788	Zemul	Abdominal pain	Flowering branches	decoction	Int.
<i>Origanum vulgare</i> L. subsp. <i>gracile</i> (Labiatae) MARE 10780	Dağ kekiği, Kuş zemulu	Epilepsy Cold	Leaves Flowering branches	infusion infusion	Int. Int.
<i>Paeonia mascula</i> (L.) Miller subsp. <i>arietina</i> (Anders.) Cullen et Heywood (Paeoniaceae) MARE 10799, 10806	Guloç, Gülhorç (Ayı gülü)	Diabetes Diabetes	Aerial parts Aerial parts	infusion decoction	Int. Int.
<i>Pistacia atlantica</i> Desf. (Anacardiaceae) MARE 11077	Kizvan, Nervend	Wound Keratoma Mount disease	Latex Latex Immature fruits	 chewing	Ext. Ext. Int.
<i>Plantago major</i> L. subsp. <i>major</i> (Plantaginaceae) MARE 10823	Yara otu	Wound	Leaves		Put on wound
<i>Polygonum cognatum</i> Meissn. (Polygonaceae) MARE 10774	Harman otu	Rheumatism	Aerial parts	decoction	Int.
<i>Portulaca oleracea</i> L. (Portulacaceae) MARE 11067	Pırpar, Pırpirim, Semiz otu	Urethra infection Inflamed wound	Aerial parts Aerial parts	decoction crushed	Int. Put on wound
<i>Pyrus syriaca</i> Boiss. var. <i>syriaca</i> (Rosaceae) MARE 10807	Adi armut, Şekok	Expectorant Stomachache	Fruits Fruits	infusion	Int. Eaten
<i>Rheum ribes</i> L. (Polygonaceae) MARE 10807	Işkin, Rives	Hemorrhoids Diabetes Stomachache	Roots (without bark) Stem (without bark) Stem (without bark)	heating	Int. (rectal) Eaten Eaten
<i>Rosa canina</i> L. (Rosaceae) MARE 11366	Kuşburnu, Şilan	Cold Asthma Immunostimulant	Fruits Fruits Fruits	infusion infusion decoction	Int. Int. Int.
<i>Rumex acetosella</i> L. (Polygonaceae) MARE 10760	Tırşok (Ekşi ot)	Diabetes Stomachic	Stem juice Aerial parts	chewing	Int. Eaten
<i>Rumex patientia</i> L. (Polygonaceae) MARE 10767	Ekşi ot	Asthma Hemorrhoids Kidney disease	Fruits Fruits Fruits	infusion decoction decoction	Int. Int. Int.
<i>Salvia candidissima</i> Vahl. subsp. <i>candidissima</i> (Labiatae) MARE 11068	Galabor	Cold	Leaves	infusion	Int.

TABLE 1. (Continued)

Botanical name and Voucher specimen	Local Names	Therapeutic effect / Ailments treated	Part(s) used	Methods of preparation	Mode of use
Salvia sclarea L. (Labiatae) MARE 10778	Dağ çayı	respiratory system diseases	Flowering branches	infusion	Int.
		Cold	Leaves	infusion (+ lemon juice)	Int.
Salvia verticillata L. subsp. amasiaca (Labiatae) MARE 11083		Nausea	Leaves	decoction	Int.
Sambucus nigra Miller (Caprifoliaceae) MARE 11365	Paţpatik	Asthma	Flowers	infusion	Int.
		Asthma	Flowers	decoction	Inhaled
Satureja hortensis L. (Labiatae) MARE 10773, 10782	Anih, Dağ kekiđi	Immunostimulant	Flowering branches	Added into the food	Int.
Scorzonera tomentosa L. (Compositae) MARE 10804	Arvent, Yara sakızı	Wound	Latex	mixed with butter and wax	Ext.
Senecio vernalis Waldst. et. Kit. (Compositae) MARE 10825		Gas pain	Flowering branches	infusion	Int.
Solanum dulcamara L. (Solanaceae) MARE 10807	Acı ot	Burns	Aerial parts		Ext.
		Expectorant	Aerial parts	decoction	Int.
Tchihatchewia isatidea Boiss. (Cruciferae) MARE 10791		Wound	Roots	mixed with crushed roots of <i>Hesperis schischkinii</i> and resin of <i>Pistacia atlantica</i>	Ext.
Teucrium chamaedrys L. subsp. sinuatum (Labiatae) MARE 11076	Dağ kekiđi	Heart diseases	Aerial parts	decoction	Int.
Teucrium parviflorum Schreber (Labiatae) MARE 11079	Dağ kekiđi	Hemorrhoids	Aerial parts	decoction	Int.
Teucrium polium L. (Labiatae) MARE 10781, 11065	Dağ kekiđi	Cold	Aerial parts	decoction	Int.
		Stomachache	Aerial parts	decoction (+ honey)	Int.
Thymus migricus Klokov et Shost. (Labiatae) MARE 11087	Dağ kekiđi	Kidney stones	Leaves	decoction	Int.
		Cold	Leaves	decoction	Int.
Tragopogon longirostis Bisch. var. longirostris (Compositae) MARE 11343	Sipling, Yemlik	Wound	Latex		Ext.
Urtica dioica L. (Urticaceae) MARE 10786	Isırgan, Gezik	Kidney stones	Leaves	decoction	Int.
		Joint pains	Leaves	decoction	Int.
		Rheumatism	Leaves	decoction	Int.
		Joint pains	Aerial parts		Ext.
Valeriana officinalis L. (Valerianaceae) MARE 10814, 10831		Kidney stones	Aerial parts	decoction	Int.
		Kidney disease	Aerial parts	decoction	Int.
Verbascum cheiranthifolium Boiss. var. cherianthifolium (Scrophulariaceae) MARE 11086		Arthralgia	Flowering branches	crushed (+ wheat flour)	Ext.

TABLE 1. (Continued)

Botanical name and Voucher specimen	Local Names	Therapeutic effect / Ailments treated	Part(s) used	Methods of preparation	Mode of use
<i>Vincetoxicum canescens</i> (Willd.) Decne. subsp. <i>canescens</i> (Asclepiadaceae) MARE 10770	Zehir otu	Fungal infection	Fruits and Leaves	crushed	Ext.
<i>Viscum album</i> L. subsp. <i>album</i> (Loranthaceae) MARE 10776	Ökse otu	Hemorrhoids Diabetes	Leaves Leaves	decoction decoction	Int. Int.
<i>Xeranthemum annuum</i> L. (Compositae) MARE 11073	Avlek, Süpürge otu	Toothache Cold Bromatotoxism	Leaves Aerial parts Aerial parts	mixed with tobacco decoction decoction	Smoke Int. Int.
<i>Ziziphora clinopodioides</i> Lam. (Labiatae) MARE 10763	Dağ kekiği	Immunostimulant	Infloresens	Added into the food	Int.

TABLE 2. The comparison of the same folk medicinal plants in Ovacık (Tunceli), Kürecik (Malatya) and Ilica (Erzurum) (—: plants not recorded)

Botanical name	Usage		
	Ovacık (Tunceli)	Kürecik (Malatya)	Ilica (Erzurum)
<i>Achillea biebersteinii</i>	Stomachache, Carminative	Abdominal pain, Menstrual pain, Infertility	Stomachache, Wound
<i>Euphorbia macroclada</i>	Eczema, Fungal infection	Bitten by scorpions and bees, Chap (Hand)	—
<i>Ficus carica</i> subsp. <i>rupestris</i>	Fungal infection, Eczema, Wound, Stomach ulcer	Wound	—
<i>Mentha longifolia</i> subsp. <i>typhoides</i> var. <i>typhoides</i>	Asthma, Abdominal pain	Intestinal disorders, Carminative	—
<i>Plantago major</i> subsp. <i>major</i>	Wound	Wound	Wound
<i>Polygonum cognatum</i>	Rheumatism	—	Kidney stones, Gynecological diseases
<i>Rheum ribes</i>	Hemorrhoids, Diabetes, Stomachache	—	Hemorrhoids, Diabetes
<i>Scorzonera tomentosa</i>	Wound	Wound	—
<i>Teucrium chamaedrys</i>	Heart diseases	—	Hemorrhoids, Kidney and gallbladder stones
<i>Teucrium polium</i>	Cold, Stomachache	Abdominal pain, Cold	—
<i>Urtica dioica</i>	Kidney Stones, Joint pains, Rheumatism	Rheumatism	Rheumatism
<i>Viscum album</i> subsp. <i>album</i>	Hemorrhoids, Diabetes,	Headache	—
<i>Ziziphora clinopodioides</i>	Cold, Bromatotoxism, Immunostimulant	Cold	—

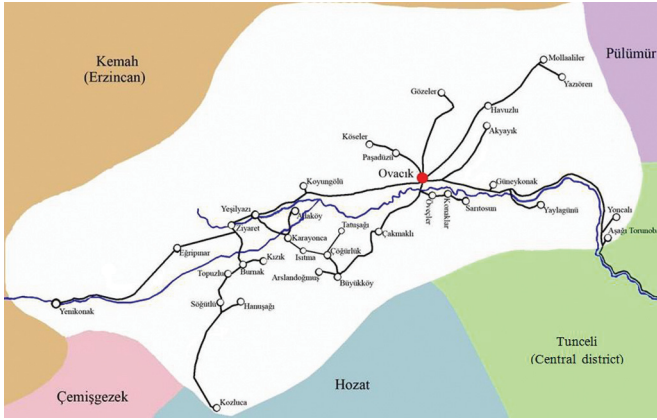


FIGURE 1. Map of Tunceli

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

Findings about the use of the plants are presented in Table 1. The plants are arranged in an alphabetical order according to their latin names. The cultivated plants are marked with asterisk.

According to the comparison (Table 2) with the other local ethnobotanical studies (3,4) in the eastern Anatolia, there are only three plants (*Achillea biebersteinii*, *Plantago major* subsp. *major*, *Urtica dioica*) which are using with the same purposes in Ovacık (Tunceli), Kürecik (Malatya) and Ilıca (Erzurum). These plants and their similar usages are also recorded in the other places in Turkey: *Achillea biebersteinii* (Isparta), *Plantago major* subsp. *major* (Giresun, Trabzon), *Urtica dioica* (Balıkesir, Çanakkale, Giresun, Isparta, İstanbul, Muğla, Trabzon) (5). In addition, in thirteen plants of the Table 2, there are also some similar usages in two localities.



FIGURE 2. Ovacık and Munzur Mountains (Photo A.Doğan)

Türkiye'nin halk ilacı bitkileri, IX: Ovacık (Tunceli)

ÖZET: Bu çalışmanın amacı Ovacık (Tunceli) yöresinde geleneksel halk ilacı olarak kullanılan bitkileri ortaya çıkarmaktır. Bu amaçla, Mayıs 2007- Mayıs 2008 tarihleri arasında Nisan, Mayıs, Haziran, Temmuz ayları içinde toplam 30 gün süren bir arazi çalışması yapılmıştır. Bu araştırma esnasında yöredeki 33 köyün hepsine gidilerek halk ilacı olarak kullanılan bitkilerden örnekler toplanmıştır. Bu bitkilerin yöresel adları, tedavideki kullanışları, yararlanan kısımları, ilaçların hazırlanışı, uygulanış şekilleri, dozları, uygulama süreleri hakkında bilgiler derlenmiştir. Toplanan bu örnekler Marmara Üniversitesi Eczacılık Fakültesi Herbariyumu'nda (MARE) bulunmaktadır. Sonuç olarak yörede toplanan 76 bitki örneğinin teşhisi sonucu 67 türden geleneksel halk ilacı olarak yararlandığı saptanmıştır. Bunlardan 65'i yabancı, 2'si ise yörede yetiştirilen bitkilerdir. Bu bitkiler ve bunların tedavideki kullanışları metin içinde tablo şeklinde sunulmuştur. Ovacık yöresinde kaydedilen bitkilerden en çok soğuk algınlığı, şeker hastalığı ve yara tedavisinde yararlandığı tespit edilmiştir.

ANAHTAR KELİMELER: Halk İlaçları, Tıbbi Bitkiler, Ovacık, Tunceli, Türkiye

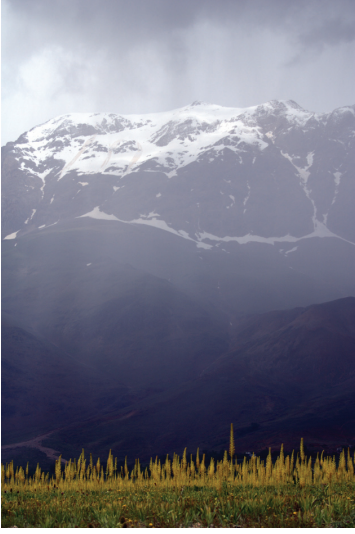


FIGURE 3. Munzur Mountains and *Eremurus Spectabilis* Population (Photo A.Doğan)



FIGURE 4. *Iris sari* (Photo A.Doğan)



FIGURE 5. *Hesperis schischkinii* (Photo A.Doğan)



FIGURE 6. *Tchihatchewia isatidea-1* (Photo A.Doğan)

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FIGURE 7. *Tchihatchewia isatidea-2* (Photo A.Doğan)