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LABIATAE FAMILY AS MEDICINAL PLANTS FROM BALIKESİR DISTRICT IN TURKEY

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SUMMARY

In this study, forty villages in the province of Balıkesir were look into and the informants were interviewed. Finally 22 Labiatae plants, exclusively used in this area, has been enlisted on this subject.

ÖZET

Türkiye'de Balıkesir Yöresinde Labiatae Familyasının Tıbbi Bitkileri

Bu çalışmada, Balıkesir il sınırları içinde yaklaşık 40 köye gidilerek, kişilerle anket yapıldı. Sonunda 22 tane Labiatae familyasına ait türün değişik hastalıklarda kullanıldığı tesbit edildi.

INTRODUCTION

The Labiatae family is known for the wealth of species with medicinal properties which have been used since early times[7]. Many of these species are very common in the Mediterranean region.

There are 45 genera of the Labiatae growing wild in Turkey, including 531 species[5]. Many of them are rich in essential oils[8]. About 93 species are noted in the literature as being used in folk medicine in Turkey[3]. These species are common mainly in the south and east of Turkey.

The medicinal value of plants of this region has not been considered until now.

Though, the research has been being done with the purpose of finding various kinds of medicinal plants in this region, this paper is being presented some parts of that survey.

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MATERIAL AND METHODS

The survey was conducted during 1986. 40 villages were gone. Informant regarding folk medicinal practice was collected for about 125 plants. The identity of the plants was checked by herbarium materials. A medicinal property was accepted as valid if mentioned by at least four different informant. Most of the interviewed people are active as herbal healers and their average age is 60 years. Healers who were popular and known in their village were chosen for the survey.

RESULTS AND DISCUSSION

The results are presented in Table 1, which includes the species chosen and their most important medicinal properties in folk medicine from Balıkesir district in Turkey.

The most important use, common to all of the surveyed species, is in the treatment of stomach pains. *Acinos rotundifolia, Origanum onites, O. vulgare* ssp. *hirtum, Rosmarinus officinalis, Salvia tomentosa, Teucrium polium, Thymus longiucaulis* var. *isophyllus* are used commonly. The medicine is prepared as tea.

Another common uses are for the treatment diabetics, colds and coughs, hemoroids, heartdisorders and indigestions. The plant material is prepared as tea and for bath as an aqueous extract. Quite unexpected is the fairly wide use in the treatment quatrs, high blood pressure, tootache, kidneystone and antidiarrheatic. The most new use is the treatment of cancer. *Teucrium polium* and *Lavandula stoechas* ssp. *Stoechas* are the most popular.

External use of the plant material is uncommon. Only *Salvia tomentosa, Teucrium polium* and *Ocimum basilicum* are used.

The affected area is treated with an aqueous extract of leaves, with liquid squeezed from leaves. Tootache is treated by oil of *Origanum onites, Rosmarinus officinalis* is considered an important remedy for high blood pressure.

Some of the findings of the present survey are unique to Turkey. For instance, *Acinos rotundifolia, Micromeria juliana, Sideritis dichotoma, Sideritis athoa,* which is not mentioned in the literature, are used in the local folk medicine[3].

On the other hand, some of the medicinal aspects listed in the literature, especially in the case of *lavandula stoechas* ssp. *stoechas, Marrubium vulgare, Mentha longifolia* ssp. *longifolia, Ocimum basilicum, Origanum saccatum, Rosmarinus officinalis, Stachys cretica, Thymbra spica* var. *spica. Teucrium polium*[3], were not reported by the informant in our survey.

A survey of the relevant chemical literature showed a high content of essential oils, rich in monoterpenes, sesquiterpenes and phenolic compounds and also flavonoids[32]. Relevant reports on *Lavandula stoechas* ssp. *stoechas* in by Tanker et al[28], *on Melissa officinalis* var. *officinalis* by Hefendehl[9], on *Mentha longifolia* and *M. pulegium* by Alpmen and Zwaing et al[1,39], on *Origanum species* by Sezik, Tanker and Maarse[13,14,19,24,29], on *Rosmarinus officinalis* by Anonymus[2], on *Salvia* species by Şarer[22,23,33,34,35], on *Sideritis species* by Sezik and Ezer[20], on *Stachys cretica* by Zincheriko[40], on *Teucrium polium* by Şarer, Vokou and

Table 1. Used of 22 aromatic plants, widely utilized in the folk medicine of Balıkesir.

	Antidiarrheatic	Cancer	Eczema	Indigestion	Guatr	Hemoroid	Heartdisorders	Highblood Pressure	Cough Colds	Externalwounds	Stomache	Diabetics	Tootache	Kidneystones
Acinos rotundifolia (Yalancı Nane)											+			
Lavandula Stoechas ssp. stoechas (Karabaş)		+		+	+		+							
Marrubium vulgare (Mayasıl otu)						+								
Melissa officinalis var. officinalis (Oğulotu) (Limon otu)							+		+					
Mentha longifolia ssp. longifolia (Dere nanesi)						+								
Mentha pulegium (Fırüskül)									+					
Micromeria juliana (Topuklu çay)									+					
Ocimum basilicum (Fesleğen, reyhan)			+									+		
Origanum onites (Güveyotu)											+		+	
Origanumvulgare ssp. hirtum (Dağ fesleğeni)											+			
Origanum saccatum (Bayırçayı)				+										
Rosmarinus officinalis (Kuşdili)								+			+	+		
Salvia tomentosa (Boşyaprak)									+	+	+			
Satureja hortensis (Çipriska)				+										
Satureja thymbra (Dereçayı, Kokuluçay)				+										
Sideritis dichotoma (Sarıkızçayı)									+					
Sideritis athoa (Kandilçayı)												+		
Stachys cretica (Çayotu)						+								
Teucrium polium (Kısa Mamut, Bodur Mamut, Kanser Otu)	+	+	+			+					+			+
Thymbra spica var. spica (Karakekik)												+		
Thymus longicaulis var. isophyllus (Taşkekiği)											+	+		
Ziziphora tenuior (Fare otu)				+					+					

* = Turkish names of species in this region.

Bessiere[25,36], on *Thymbra spicata* var. *spicata* by Tanker and İlisulu[31], on *Thymus* species by Tanker and İlisulu[4,26,27], on *Ziziphora* species by Sezik and Tümen and Kokkalou[11,21].

It has been shown in many cases that essential oils possess antimicrobial activity[8,32]. Essential oils extracted from *Thymus, Origanum, Ziziphora, Acinos, Teucrium* species showed antibacterial activity[12,15,17,18,32,38]. Flavonoids from *Sideritis, Stachys, Marrubium, Salvia, Thymus* species showed diüretic, spasmolytic, antitussif, Coleretic, antienflamatory, hipoglycemic[6,10,16,34,37].

These activities provide a partial explanation for attributing medicinal properties to these aromatic species.

Based on our survey it is concluded that all these species should be considered as potantially valuable crops.

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