

INVENTORY OF MEDICINAL PLANTS USED FOR TRADITIONAL TREATMENT OF ECZEMA IN THE REGION OF HODNA (M'SILA - ALGERIA)

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ABSTRACT

The ethno botany study in the region of Hodna helped to highlight the different traditional uses of plants by the villagers. The goal is to make an inventory of plants from traditional medicine that treats Eczema. 1900 question cards were established in order to obtain information on medicinal plants in the area of study that deals with Eczema, those targeted were herbalists, healers and villagers. The total numbers of people surveyed were 35 whose age was between 20 and 80. The result was the identification of 25 species distributed in 18 botanical families with a dominance of especially Lamiaceae, Liliaceae, Asteraceae and Oleaceae.

Keywords: Medicinal plants, Traditional treatment, Eczema, Hodna, Algeria

INTRODUCTION

Eczema is one among the group of skin diseases, causing inflammation, dry skin and itching. The two types of eczema are the most common atopic dermatitis and contact dermatitis. The first is an inflammation that occurs because to family history related to the affection, the second is an inflammation that occurs from exposure to allergens and irritant substances (Elwina, 2008). There is no known cure for eczema, thus treatments aim to control

the symptoms *i e* to reduce inflammation and relieve itching.

Eczema is also treated in the field of herbal medicine. In order to discover the medicinal plants used in Eczema, an Ethnobotanical survey was conducted to promote traditional medicine, which is widely practiced in the region of Hodna. To enlist all the plants that heal the disease of contact dermatitis is the case in our study.

MATERIALS AND METHODS

Study area

The region of M'sila, occupies a privileged position in the central part of Northern Algeria. As a whole, it is part of the central highlands. It covers an area of 18,718 km² and it is located at an altitude of 500 meters, situated between 35° 42' 07" N 4° 32' 49"E (W.G.S., 84). The climate of the investigation area is continental, due in part to the Saharan influences. Summer is hot and dry while winter is very cold, with low and irregular rainfall; it is of the order of 100 to 250 mm /year (Seltzer, 1946 and Le Houerou, 1995). Morphology and its geographical position gives this region a unified ecological aspect represented by the predominance of the steppe, which covers 1.2 million hectare (63% of the total area) of the state. The areas used for agriculture accounts for 20% of the total area devoted mainly to cereals, to arboriculture and market gardening.

Ethnobotanical surveys

The Ethnobotanical surveys were conducted from February 2006 to June 2010, information was collected on traditional uses of wild plants and also those cultivated. Using the 1900 questionnaire that have been developed, we conducted Ethnobotanical surveys of the entire M'sila region in order to have as much information regarding the traditional use of medicinal plants by local people because of their knowledge in ethno medicine. All investigations described the information about (Babba Aissa, 1999):

- Date,
- Research area (district/village),
- Informants (name/age/sex/educational level),
- Scientific name of plant,
- Local name of plant, part of the plant used,
- Usage purpose of the plant,
- Dosage,
- How to use it (decoction, infusion, etc.),
- Usage period of the plant
- Side effects of the plant.

Table 1: Age group of people surveyed

Age group	Men	Women	Total
20-30	4	1	5
30-40	15	1	16
40-50	6	0	6
50-60	2	3	5
60-70	1	0	1
70-80	1	1	2
Total	29	6	35

Table 2: Plants traditionally used to treat Eczema in the region of Hodna (M'sila-Algeria)

Botanical name / Family	Local name	Number of Informants	Parts used	Preparation
<i>Ajuga iva</i> (L.) Schreb. (Lamiaceae)	Chendgoura	2	Leaf	Decoction, maceration
<i>Allium cepa</i> L. (Liliaceae)	El Basla	1	Pulp	Uction
<i>Allium sativum</i> L. (Liliaceae)	Thoum	1	Fruit	Cataplasm
<i>Anthemis nobilis</i> L. (Asteraceae)	Babounej	4	Flower	Infusion, decoction, lotion, poultice
<i>Artemisia herba alba</i> Asso. (Asteraceae)	Chih	1	Aerial part	Decoction, lotion, maceration
<i>Atriplex halimus</i> L. (Chénopodiaceae)	G'taf	1	Leaf	Lotion
<i>Colocynthis vulgaris</i> (L.) Lud. (Cucurbitaceae)	Hadj	1	Flower	Decoction, massage.
<i>Fraxinus excelsior</i> L. (Oleaceae)	Dardar	1	Leaf	Infusion, powdered
<i>Globularia alypum</i> L. (Globulariaceae)	Tesselgha	1	Whole plant	Decoction
<i>Juniperus phoenicea</i> L. (Cupressaceae)	Ara-aar	2	Aerial part	Lotion, infusion, decoction
<i>Lavandula stoechas</i> L. (Lamiaceae)	Khozama	1	Aerial part	Decoction, maceration
<i>Nerium oleander</i> L. (Apocynaceae)	Defla	2	Leaf	Cinder, decoction
<i>Olea europaea</i> L. (Oleaceae)	Zitoune	1	Fruit	Oil (unction)
<i>Pistacia lentiscus</i> L. (Anacardiaceae)	Dharou	1	Fruit	Oil (unction)
<i>Quercus ilex</i> L. (Fagaceae)	Balout	1	Leaf	Powdered, decoction
<i>Retama retam</i> Webb. (Fabaceae)	R'tem	1	Aerial part	Lotion
<i>Ricinus communis</i> L. (Euphorbiaceae)	Kharoua	1	Fruit	Decoction, Oil
<i>Rosmarinus officinalis</i> L. (Lamiaceae)	Iklil el djabal	1	Aerial part	Infusion
<i>Ruta chalepensis</i> L. (Rutaceae)	Fidjel	1	Aerial part	Decoction, infusion, powdered
<i>Salvia officinalis</i> L. (Lamiaceae)	Swak Nbi	1	Aerial part	Infusion
<i>Teucrium polium</i> L. (Lamiaceae)	Khayata	1	Aerial part	Decoction, maceration
<i>Thapsia garganica</i> L. (Apiaceae)	Bounafaa	1	Aerial part	Cataplasm
<i>Thymelaea hirsuta</i> Endl. (Thymelaeaceae)	Methnane	2	Aerial part	Infusion, decoction, maceration
<i>Viola odorata</i> L. (Violaceae)	Banafsadj	1	Flower	Extract (compress)
<i>Ziziphus lotus</i> (L) Desf. (Rhamnaceae)	Sedra	1	Leaf	Lotion, infusion

RESULTS AND DISCUSSION

With the help of flora of Quezel and Santa (1962–1963), Ozenda (1983) and Maire (1952–1987) and the herbarium of the Department of

Natural Sciences and Life, the University of M'sila, we determined the species collected in the field to compile a complete list of medicinal

species identified in the study area, parallel to the results of surveys of villagers « 35 people: 6 women and 29 men of different ages, the informants age ranges are between 20 to 80 years » (Table 1).

The results showed that medicinal species used in treating Eczema were 25 which belong to 18 families and 24 genera (Table 2). It was noted that species from Lamiaceae family was high (20%). The plant parts most commonly used were the aerial parts (42.30%), leaves (26.92%), flowers (11.74%). Instructions of plant usage varied. The most common form of preparation used was decoction (28.89%), followed by infusion (15.56%), lotion (13.34%), and maceration (11.11%).

CONCLUSION

This study has shed light on the different traditional uses of plants by villagers in the region of Hodna (M'sila) to treat Eczema. This work provides a list of classification of medicinal plants that treat Eczema in the M'sila region. We identified 25 medicinal species distributed in 18 botanical families with a dominance especially of Lamiaceae. Thus, the purpose of this study was an inventory of traditional uses of medicinal plants in the Hodna and to provide baseline data for future pharmacological and phytochemical studies.

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