A259 Studies on pharmaceutical ethnobotany in Montseny biosphere reserve (Catalonia, Iberian Peninsula)

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An ethnobotanical survey was carried out in the massif of Montseny, situated in north-east Catalonia (Iberian Peninsula), with an area of 826 km^2 and a population of 80000. Through interviews with 180 people carried out from 1993 to 2000, we could establish the catalogue of the ethnoflora, constituted by 584 species, 513 of which (around 23% of the total flora of the territory) have some popular uses (1); we recently reported the data on non-crop food plants (2). We are presenting here the collected ethnobotanical information about medicinal plants, concerning 351 species, with 4023 use-reports. Through comparison with a large literature set, we detected 501 unreported or uncommon uses corresponding to 201 plant species, 57 of which had never or very rarely been cited as medicinal or toxic. The analysis of the results, including the use of different quantitative ethnobotany indices, confirms some tendencies already observed in similar studies in other Catalan regions, and allows us to conclude that: 1) folk use of medicinal plants is still alive, but declining, in the area studied; 2) a relatively high number of new or very scarcely reported medicinal plants or plant uses is detected; 3) some of these medicinal plants reported by the informants can be good candidates for further phytochemical and pharmacological studies in view of new drug development; 4) western European territories are suitable places to conduct pharmaceutical ethnobotanical studies as a first step in the search for new bioactive products; there is no reason for this research be restricted, as curently mostly is, to tropical or subtropical zones; 5) it is urgent to do such studies before the informants who have the direct knowledge of uses disappear.

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A260 Calendula officinalis extract as a suitable plant product in treatment of dermatophytosis

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One of the most important fungi species in dermatophytosis is *Trichophyton mentagrophytes*. Clinical evidence indicates increasing resistance of chronic-infections to treatment with drugs and some azoles (e.g. miconazole) have been associated with skin sensitivity. Calendula extract is used as antiinflammatory and antiseptic in the skin (1,2). Here, we have studied the effects of calendula extracts (ointment 1.5% and oil extract 1%) in the treatment of experimental dermatophytosis caused by inoculation of *Trichophyton mentagrophytes* on skin of guinea-pigs. During 10 days the effect of drugs was studied on 6 groups of infected guinea–pigs (each group contained 3 animals). Calendula ointment 1.5% (CO) and oil extract of calendula 1% (OC) from flowers of *Calendula officinalis* were prepared in the lab. Then, therapeutic efficacy of CO, OC, pure olive oil (POO), base of ointment (BO) and miconazol ointment (MO) were studied in this disease. The changes of lesion symptoms during the treatment and the growth of fungus in culture of skin blocks were analyzed by χ^2-test and Fisher exact test. A four score (0 to +3) evaluation criterion was used in order to show the lesions, (blind case – control method). At the end of the treatment, the blocks of skin were cultured in SCC media. In comparison to control group, the decreasing of lesion symptoms in the group in which CO and OC were used had a significant difference after 10 days ($P < 0.05$). The groups in which MO and POO and BO were used did not show the significant difference. In eliminating of fungi, there was a significant difference between CO and BO and so was for OC and POO ($P < 0.001$). MO and CO and OC eliminated 93.4%, 73.4% and 53.4% of fungi in skins. This study shows the positive effect of extracts of calendula (both CO and OC) in decreasing lesion symptoms of dermatophytose caused by *T. mentagrophytes* on guinea pigs in 10 days. In order to complete elimination of fungi in skin a longer period of treatment is needed.

References: 1. Della Loggia R. et. al. (1994) Planta Med 60(6): 516-20. **2.** Khan M.T. (1995) M.Sc Thesis, University of East London.