

PRELIMINARY EVALUATION OF THE BENEFICIAL EFFECTS OF A PHYTOEXTRACT ON RESPIRATORY FUNCTION

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Introduction

The pathologies affecting the respiratory tract show high degrees of incidence and prevalence, which has remarkable social and economic repercussions related to their elevated degree of morbidity. The disorders associated with ineffective respiratory function constitute one of the main causes of demand for health assistance, including, above all, various pharmacological products. This study aimed to evaluate the efficacy of phytotherapeutic treatment in improving respiratory function in a group of residents in an old age home.

Materials and Methods

After exclusion of the subjects presenting with contraindications to spirometry – previous cerebrovascular episodes, lung infections in progress, recent myocardial infarction, unstable angina pectoris, aneurism, serious artery hypertension, nausea or vomiting, recent thoracic, abdominal or eye surgery – a group was formed consisting of 30 subjects randomly subdivided into 2 groups of 15 subjects each (both treated and untreated). Anagraphic evaluation (gender, age), anthropometric measurements (weight, height, BMI) and spirometry (FVC, FV1) were then conducted. Spirometry was performed by specialised staff of the same health unit using the portable spirometer Pony FX. The subjects undergoing treatment were given by oral administration at the dose of 50 ml a phytoextract made up of Pine, Hyssop, Polygala, Common Thyme, Thymus Serpyllum (Wild Thyme), Mallow, Echinacea, Eucalyptus, Melissa, Liquorice. The study took place from 23/10/2009 to 29/12/2009 and there was a voluntary drop-out of 2 subjects from the control group.

Results and conclusions

The group of subjects treated was made up of 11 females and 4 males; BMI=28.6 (mean age, 77) while that of untreated subjects included 6 females and 7 males; BMI=27.1 (mean age 79). Overall, the group of treated subjects showed a general improvement in all the parameters being considered for respiratory performance. More precisely, the FVC (forced vital capacity) of treated subjects showed an average increase of 3.5%, while among untreated subjects the figure of FVC dropped by 11.0% ($p=0,0032$). At the same time, the forced respiratory volume in 1 second rose by 2.4% in treated subjects as opposed to the 7,0% drop shown among untreated subjects ($p=0,18$). This parameter – the most reproducible among spirometric ones – represents a reliable index of the resistance of the peripheral airways and an overall index for evaluation of efficiency of the airways. All the results obtained show a potential efficacy in the phytotherapeutic mix used, although further studies are necessary including a larger number of subjects.