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secidi@reit.up.pt

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Bioactive compounds and reducing ability of medicinal herbal infusions: a regard over their labels

N. Baptista[1,2], A. Costa[1,2], A. Vinha[2,3], A. Nunes[1,2], R. Alves[2,4], L.M. Cunha[1], M.B.P.P. Oliveira[2]

[1]Faculty of Sciences, University of Porto, Portugal.
[2] REQUI*M*TE, Faculty of Pharmacy, University of Porto, Portugal.
[3] Faculty of Health Sciences, University Fernando Pessoa, Portugal.
[4] REQUI*M*TE, School of Engineering, Polytechnic of Porto, Portugal.

Consumer interest in a healthy diet has been growing exponentially. Consequently, food industries provide, nowadays, an increasing number of products (including teas and infusions) that label beneficial health and/or well-being effects.
In this work, a preliminary survey of several herbs commonly used in commercial mixtures for infusions (horsetail, lemongrass, green tea, fennel, St. John's wort, senna and tilia) was performed. Infusions of single plants (n=13) and mixtures (n=18) were analyzed and their labels verified in order to identify possible gaps in their claims.
Total phenolics [1], total flavonoids [2] and tannins [3] contents, as well as the reducing ability (using FRAP assay [4]) of samples, were determined.
In what concerns to the single plant infusions, a green tea sample presented the highest total phenolic content (136 mg EAG/100 ml) and reducing power (931 mg ESF/100 ml). Among the other pure infusions, closer values to the green tea were found in the lemongrass brew (107 mg EAG/100 ml, 667 mg ESF/100 ml). There was a large variability in the values obtained for the infusions of mixtures, even among those prepared with the same plant, which, in part, could be explained by a possible synergistic effect. It was also noted that the information of the labels is hardly enlightening taking into account the possible adverse reactions that these products may originate. Moreover, certain products presented health claims somewhat inconsistent with their constitution.
In conclusion, it was possible to verify the compositional variability of herb preparations for infusions that exist in the market. Healthy consumers can drink them moderately with benefits. However, consumers with some sort of dysfunction should analyze carefully the labeling or any other information related to the infusions content.

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