

5th MoniQA International Conference

16-18 September 2015, Porto, Portugal

Food and Health - Risks and Benefits

Book of Abstracts



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***Matricaria recutita* L. (chamomile) decoction as a source of phenolic compounds**

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Aromatic herbs have been used to prepare several infusions and decoctions with claimed beneficial health effects, many of them attributed to the presence of phenolic compounds (hydrophilic molecules highly abundant in those aqueous preparations) (Guimarães et al., 2013). In fact antioxidant, antimicrobial and antitumor properties, among others, of phenolic compounds have been extensively reported (Kahkonen et al., 1999; Rauha et al., 2000). In the present work, *Matricaria recutita* L. (chamomile), one of the species mostly used to prepare herbal drinks was characterized in terms of phenolic profile. Américo Duarte Paixão Lda. (ADP) provided the samples, which were further extracted by decoction, lyophilized, re-dissolved in water (5 mg/mL) and analysed by HPLC-DAD-ESI/MS. Nineteen phenolic compounds were identified, among which were nine flavonoids and ten phenolic acids. Phenolic acids were the major group present in *M. recutita* decoctions (23.66 ± 0.27 mg/g lyophilized decoction), in which four compounds were tentatively assigned as caffeoyl-2,7-anhydro-3-deoxy-2-octulopyranosonic acids (CDOA) derivatives, being a di-CDOA (6.83 ± 0.05 mg/g) the main phenolic acid. Among the flavonoids identified (17.89 ± 0.91 mg/g), luteolin-O-glucuronide (4.80 ± 0.54 mg/g) was the major compound. To the best of our knowledge, such type of compounds has not been previously reported in *M. recutita* flowers. Nevertheless, luteolin glycosides are commonly found in relevant amounts in this matrix and in its infusions. Due to the well-established bioactive properties of phenolic compounds, *M. recutita* flowers could be used in order to obtain extracts with health-promoting properties or be incorporated into foods as natural preservatives.

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