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## INTRODUCTION

*Leonurus cardiaca* L., also known as motherwort, is a plant native from central Europe that it is spread in different temperate countries around the world. The plant has been described to exert several beneficial properties and it is presently used in infusions, decoctions, syrups and tinctures, as well as an ingredient of pharmaceutical formulations [1, 2].

As the plant phenolics are frequently associated to the claimed health benefits of *Leonurus cardiaca* L. we herein focus in the phenolic composition.

## METHODS

⇒ An extract of the aerial parts of the plant was prepared with aqueous ethanolic solution (80%) and further purified onto SPE C18-E cartridges [3].

⇒ In order to determine the exact phenolic composition the extract was analyzed by HPLC-DAD and ESI-MS<sup>n</sup> techniques [4].

⇒ The main phenolic compounds were further quantified by HPLC external method.

## RESULTS AND DISCUSSION

Phenylethanoid glycosides were the most prevalent phenolics. From these, lavandulifolioside and verbascoside represented 50% and 27% of the total quantified phenolic compounds whereas leucoseptoside A and leonoside B (herein described for the first time in *L. cardiaca* L.) represented 5–6% of the total phenolic content. The extract also contained flavonoids (10%), mostly represented by glycosidic quercetin derivatives (Table 1).

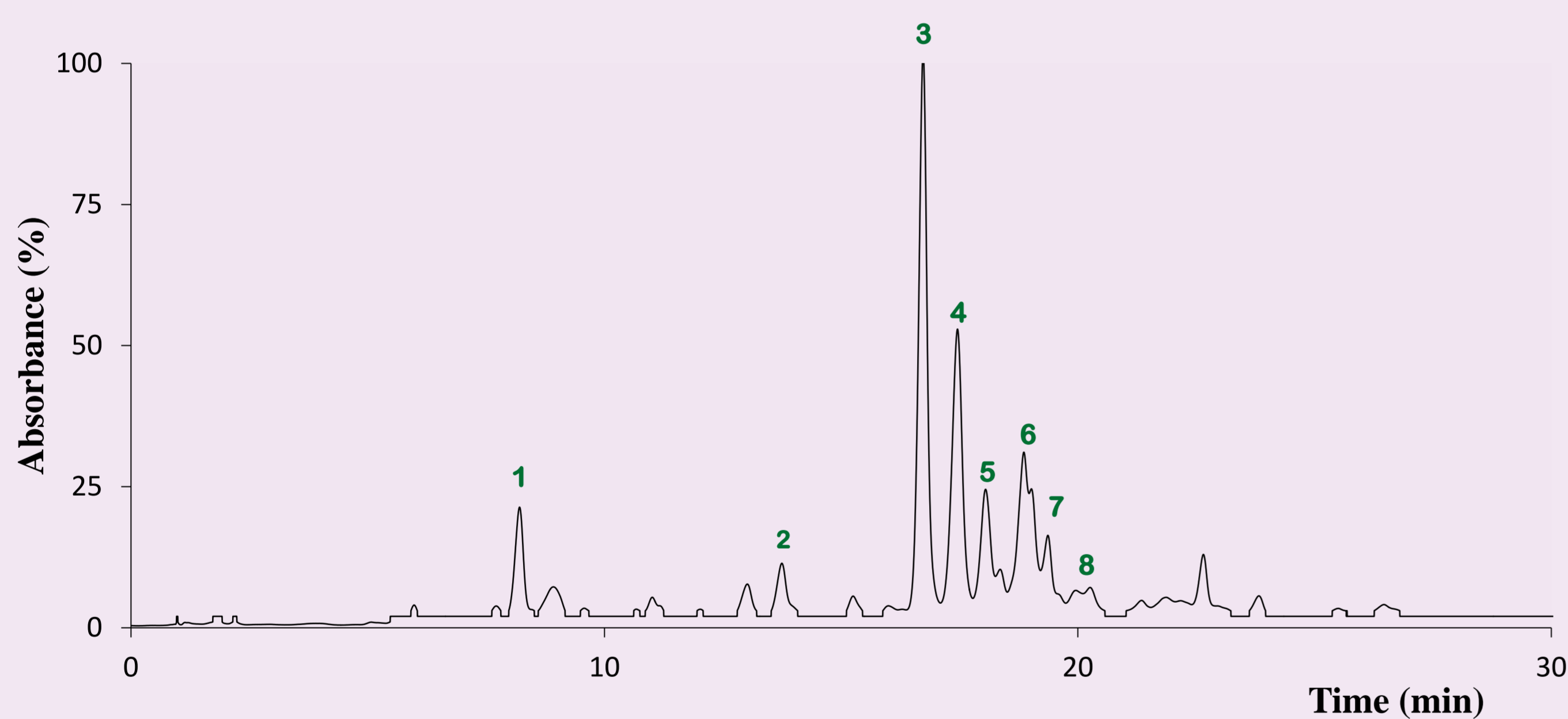


Figure 1. Chromatographic profile of *L. cardiaca* purified extract at 340 nm

Table 1. Main phenolic compounds of *L. cardiaca* purified extract

Peak	[M-H] <sup>-</sup>	Compound	% respect to total phenolics quantified
<b>Phenylethanoid glycosides</b>			
3	755	Lavandulifolioside	50.7
4	623	Verbascoside	27.4
7	637	Leucoseptoside A	6.3
8	783	Leonoside B	5.0
<b>Flavonoids and caffeic acid derivatives</b>			
1	341 771	Caffeic acid glucoside Rutin- <i>O</i> -glucoside	0.7
6	463 507 593	Quercetin-3- <i>O</i> -glucoside Caffeic acid derivative Luteolin-7- <i>O</i> -rutinoside	5.0
5	609	Rutin	3.2
2	625	Quercetin-3- <i>O</i> -sophoroside	1.1
<b>Total Phenolics (mg/g of extract)</b>			<b>500±49</b>

## CONCLUSION

THE PHENOLIC ENRICHED *L. CARDIACA* L. EXTRACT WAS MAINLY COMPOSED BY PHENYLETHANOID GLYCOSIDES AND ALSO CONTAINED GLYCOSIDIC FLAVONOIDS AND CAFFEIC ACID DERIVATIVES. POSSIBLE ASSOCIATION OF THE MAJOR PHENOLICS HEREIN IDENTIFIED WITH SPECIFIC HEALTH BENEFITS OF THE PLANT ARE UNDER INVESTIGATION.

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