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## Phenolic fingerprint of non-fermented and fermented aqueous extracts from *Hamamelis virginiana*

Z Duckstein <sup>1</sup>, F Stintzing <sup>1</sup>

<sup>1</sup>WALA Heilmittel GmbH, Research & Development, Dorfstrasse 1, 73087 Bad Boll, Germany

Congress Abstract (/ejournals/abstract/10.1055/s-0030-1264521)

*Hamamelis virginiana* L. (witch hazel) is known for its high level of tannins. Because of anti-inflammatory and wound recovery aiding effects, preparations from *Hamamelis* are widely used for treatment of dermatological disorders [1]. Preparations described in the German homoeopathic pharmacopoeia represent fermented aqueous extracts. Because research on fermented plant extracts has only been scarcely performed detailed information on the chemical composition of these preparations is required [2, 3]. In the present investigation, aqueous extracts of fresh *Hamamelis virginiana* leaves were studied by RP/HPLC-ESI/MS. The following characteristic phenolic compound classes could be identified: Cinnamic acid derivatives, proanthocyanidins, flavonol glycosides and gallotannins. Contrary to previous literature [4, 5] oligomeric gallotannins made up the main part in the non-fermented extract, including galloylhexoses consisting of six up to ten gallic acid units. After six months of fermentation virtually no oligomeric gallotannins could be detected any more, whereas the gallic acid fraction increased in the same time range. Additionally, reduction of the flavonol glycoside and proanthocyanidin content was observed. Notably the cinnamic acid derivatives were rather stable during the examination period. Comparing non-fermented and fermented aqueous *H. virginiana* leaf extracts, considerable differences in the phenolic compound pattern were observed. These findings corroborate the apprehension that data on the chemical composition of *Hamamelis* leaves cannot be transferred to aqueous fermented preparations derived therefrom [2]. Further research is underway to obtain continuative insights into pathways and kinetics of phenolic compound conversion in *Hamamelis virginiana* extracts.

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