

Assessing sensory properties of the early modern medicine “Elixir amarum Hiaernei”

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Abstract

In early modern medicine odor, flavor and taste were used to assess pharmacological potential of medicinal

herbals. In this study ingredients of “Elixir amarum Hiaernei” were assessed by sensory analysis.

Introduction

We are reworking the early modern medicine with focus on products, today known as Swedish Bitters or similar names, and historically as “*Elixir amarum Hiaernei*”. The history of the recipe dates back at least to mid-18th century, however early versions of the composition dating from the sixteenth century are known. It was probably one of the Hiaerne-brothers, Ulrik Leonhard (1712-1758) or Christian Henric (1709-1794), who developed it into the final medicine (1). From a number of Linnaeus sources from later 18th century it is well known that odor, flavor and taste were used to assess pharmacological potential of medicinal herbals (2).

The purpose of this study was to assess ingredients of “*Elixir amarum Hiaernei*” from a sensory perspective.

Methods

The ingredients in “*Elixir amarum Hiaernei*” according to the 18th century recipes: agarikon, aloe, gentian, myrrh, rhubarb, saffron, Theriac Andromachalis, zedoary together with alcohol and sugar.

These ingredients were assessed by a trained sensory panel using a slightly modified version of the Flavor Profile Method®. Each ingredient was evaluated with respect to odor, taste and flavor.

References

1. N.-O. Ahnfelt and H. Fors, Making Early Modern Medicine: reproducing Swedish Bitters, *Ambix*, 63:2, 162-183
2. C. Linnaeus, *Clavis Medicinae Duplex - The two keys of medicine*. Mundus Linnaei Series No. IV. Ed. L. Hansen, London 2012.



Urban Hjärne (1641-1724).
Lithograph by Otto Henrik Wallgren .

Results

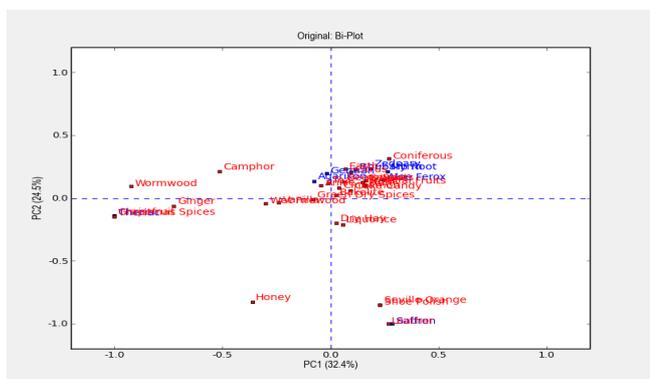
All ingredients were intense in taste, flavor and odor. The ingredients could be described due to its sensory characteristics, in which they differed largely, below PCA plots show the large variation, mainly perceived as taste and flavor. However, they had in common that they were high in bitterness. The two first PC's explained approximately 55% of the variation in odor and 90% of the variation in taste and flavor.

Discussion

The ingredients of this historic medicine had intense taste, flavor and odor in line with historical sources. It points for example out that the senses, especially olfaction, was of high importance for the apothecary during the 18th century. In order to find the right blend of ingredients the sensory profiles were of highest importance, both ingredients and blended medication were valuated due to this both by physicians and patients (2).

Sensory evaluation was also of major importance in the quality assessment of herbal drugs by the early modern apothecary.

Odor



Taste and Flavor

