

POSTER PRESENTATION

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P01.32. Can homeopathic verum and placebo globules be distinguished by UV spectroscopy?

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Purpose

Homeopathic preparations are used in homeopathy and anthroposophically extended medicine. Previous studies described differences in UV transmission between homeopathic preparations of CuSO_4 and controls. The aim of the present study was to investigate whether statistically significant differences can be found between homeopathic verum and placebo globules by UV spectroscopy.

Methods

Verum (aconitum 30c, calcium carbonate/quercus e cortice) and placebo globules used in two previous clinical trials were dissolved in distilled water at 10mg/ml 20-23 hours prior to the measurements. Absorbance was measured at 190 – 340nm with a Shimadzu UV-1800 double beam spectrophotometer. Duplicates of each sample were measured in a randomized order 4 times on each of the 5 measurement days. To correct for differences between measurement days, average absorbance of all samples on one day was deduced from absorbance of the individual samples. The Kruskal-Wallis test was used to determine group differences between the samples, and finally the coding of the samples was revealed.

Results

First analysis showed significant differences ($p \leq 0.05$) in average UV absorbance at 200 – 290nm between the samples and a tendency of a correlation ($p \leq 0.1$) between absorbance and globule weight. More results will be presented at the conference.

Conclusion

Since the absorbance of the samples at the wavelengths between 200 and 290nm was small, a number of aspects

had to be considered and should be corrected for if they are present when performing UV spectroscopy on homeopathic globules: (1) Exact weighing of the globules; (2) Measurement error of the spectrophotometer at small absorbances; (3) Drift of the spectrophotometer during a measurement day; (4) Differences between measurement days.

The question remains what caused the differences in absorbance found in these experiments; the use of the original material for the production of the verum globules, differences in the production of verum and placebo globules, or other context factors.

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