The use of medicines to prevent epidemic diseases

Scientific evidence of the efficacy of Belladonna to prevent scarlet fever—A systematic review with its documentation and narratives

Summary

In 1799, Dr. Samuel Hahnemann discovered during an epidemic of the smooth type of scarlet fever that Belladonna was not only curative in the first stage of the disease, but that it was also its best preventative. Hahnemann published the results of his observations in which he described in minute details the prevailing smooth type of scarlet fever and its indications for the use of Belladonna and how to prepare and administer it in an individualized dose. He made it very clear that certain criteria were essential for the successful application of Belladonna as a prophylactic remedy, which included, first, that Belladonna should be only used for the prevailing smooth type of scarlet fever; second, Belladonna had to be prepared from the *fresh* plant through a precise process of preparation in order to keep its full potency, and above all, that it should not be heated; third, it had to be administered in infinitesimal doses (1/432,000 of a grain and generally every 72 hours); and finally, Belladonna should preferably be given before an exposure to the contagium and should be continued for four to five weeks after the end of an epidemic.

Dr. Christoph Hufeland of Berlin, one of the most distinguished and better known academic physicians of Europe, was one of the first physicians to put Belladonna to the test following the original report of Hahnemann and reported its successful application to prevent scarlet fever, and thus induced his colleagues through numerous publications to put Belladonna to the test.

Numerous reports of trials began to appear in the literature out of many countries over the next century.

A systematic review was conducted by searching through several data banks, including Google Books, the large digital library of the Wolfgang-Schweitzer Library at the University of Hamburg, Google Scholar, PubMed, ResearchGate, several indices, including the General Index of the Materia Medica Pura Project, several issues of the Index Catalogue of the Library of the Surgeon-general's Office, ReferenceWorks, Encyclopedia Homeopathica and The Weight of Evidence.

Also all the references cited in the dozens of reviews that were found in the literature on this subject have also all been sought after in many libraries, including the digital library of the National Library of Medicine, HathiTrust Digital

Library, the Wellcome Collection, the British Library, Gallica digital library of the Bibiothèque Nationale de France, the German National Library, Gemeinsamen Bibliotheksverbund, the Österreichischen Nationalbibliothek, the Center for Research Libraries and the Internet Archive Library.

All the reports that have been found in the literature on the use of Belladonna to prevent scarlet fever have been rigorously analyzed and evaluated.

In this systematic review, 192 report series of trials have been found in the literature on the use of Belladonna to prevent scarlet fever, which makes this review by far the largest one ever conducted on the subject.

Out of these 192 report series, 155 or 81% presented trials with positive outcomes and 95 or 61% of these 155 report series presented significant findings or about 50% of the total number of report series that have been found.

Only the 95 report series with positive outcomes and significant findings have been summarized in this review. The other 60 report series with positive outcomes but *without* significant findings have only been cited.

Thirteen report series of trials with mixed and twenty-four with negative outcomes for a total of 37 report series have also been found in the literature, which is four times less than the number of report series of trials with positive outcomes (155).

All of these 37 report series of trials with negative or mixed outcomes have been reported here in order to review the type of preparation of Belladonna and the methodology used, and the type of scarlet fever epidemics in which it was administered.

It is interesting to note that *none* of the negative or mixed outcome trials described the methodology that was used and only one observer partly described the type of scarlet fever in which Belladonna was applied, which are two necessary criteria for the evaluation of the quality of a trial.

A great number of reviews of the literature have been conducted on this subject over the decades, and the great majority of the reviewers, as well as the great majority of medical authorities who pronounced themselves on the subject, found Belladonna to be an effective mean to prevent scarlet fever and recommended its use during epidemics, as it was found effective, harmless, easy to use and inexpensive. A number of governments have also recommended or even requested its physicians to administer Belladonna as a prophylactic measure during scarlet fever epidemics.

This review documents all the pertinent information on the subject, including the dramatic narratives of trials in the midst of “murderous” epidemics, discussions among medical authorities on the merits or opposition to such a practice, how blinding bias against homeopathy prevented many to put Belladonna to the test, despite the indisputable positive outcomes that was coming out from every country in which it was tried.

It is important to point out that the majority of the trials conducted with Belladonna came out of northern Europe during the first half of the nineteenth century, a place where and a time during which scarlet fever was most contagious and malignant.

In conclusion, the scientific evidence in favor of the effectiveness and the efficacy of Belladonna to prevent the smooth type of scarlet fever is overwhelmingly, quantitatively and qualitatively positive, and statistically very significant.

Hahnemann’s discovery in 1799 opened a window to an entire new and far reaching field of pharmacology, which is the use of medicines to prevent epidemic diseases.

Since the initial trial of Hahnemann in 1799, the methodology of homeoprophylaxis has been further perfected and simplified by Hahnemann and several succeeding generations of homeopaths, and has been extended with the same degree of effectiveness to other infectious diseases, such as cholera, yellow fever, smallpox, diphtheria, whooping cough, measles, influenza, malaria, poliomyelitis, meningitis, Japanese encephalitis, leptospirosis, dengue fever, chikungunya, COVID-19, etc.

Homeoprophylaxis has many major advantages and some minor disadvantages, but overall what should be remembered is, that it is very safe, efficacious, cost-effective, quick to deploy and simple to apply.