Synergistic Effects of Elderberry Extract in Conjunction with Antibiotics

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Previous research has shown evidence that Elderberry (Sambuscus) has synergistic effects against bacterias when used with Chloramphenicol, Ampicillin, and Trimethoprim. This study is an attempt to replicate their findings using commercially prepared Elderberry extract from a local health food store, and a self prepared extract using dried Elderberries. Various concentrations of elderberry extract were used to test a synergistic effect with these antibiotics against the K-12 of Escherichia coli. This study failed to show that commercially available elderberry extract demonstrated a synergistic effect with any of the tested antibiotics. The two most likely explanations for the null result are that Elderberry does not have a synergistic effect or commercially available extract does not contain an active Elderberry phytochemical. Chromatography and Phenolic testing showed the most likely phytochemical found in Elderberries are phenolic compounds. The self prepared extract contained a higher concentration than the commercial extract. Additional phenolic and synergism testing of the dried Elderberry extract will be performed.

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