

Identification of plant extracts with antimicrobial activity against drug-resistant bacteria.
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Methicillin-resistant *Staphylococcus aureus* (MRSA) is a drug-resistant opportunistic pathogen that can cause serious infections which may lead to sepsis and even death. We previously identified extracts from 10 plants that exhibited antimicrobial activity toward *Pseudomonas aeruginosa* – another drug-resistant opportunistic pathogen. The goal of this study was to determine if any of these extracts also exhibited antimicrobial activity against MRSA. Here we used a disk diffusion assays to measure antibiotic sensitivity. Of the ten extracts tested, only extracts of *Agrimonia gryposepala* (tall hairy agrimony) produced measureable zones of inhibition. Vancomycin was used as a positive control and produced robust zones of inhibition (as this antibiotic is known to have antimicrobial activity against MRSA; the negative control [vehicle, ethanol] did not produce zones of inhibition). These data suggest that *A. gryposepala* extracts may contain a compound that could have broad applicability toward drug-resistant bacteria whereas all other extracts tested exhibited a narrower spectrum of activity. **(Supported by NIH Grant P20GM103434 to the West Virginia IDeA Network for Biomedical Research Excellence)**