Reactivity of different Salmonella antigens with alcoholic extracts of different plants

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Background: Extracts of different plants are being used in tribal populations against typhoid fever since a long time. In this regard the efficacy of the extracts of Baptisia tinctoria is well known. In an initial study by us we found that Baptisia extract could react with Salmonella antigens in vitro. Thus in this study we explored whether Salmonella antigens could also react with other plant extracts.

Methods: Alcoholic extracts of 53 different plants were prepared as per standard pharmacological protocols. Twenty Salmonella serotypes with known antigenic formula were used as Salmonella antigens as per prescribed antigen preparation methods in suspensions. After this they were allowed to react in vitro under suitable temperature, pH and ionic environments.

Results: Some plant extracts showed non-specific reactions against all Salmonella serotypes, some specifically showed reactions with typhoidal Salmonella serotypes only, and many others showed specific reactions with a single serotype only.

Conclusions: These reactivities of different plant extracts with Salmonella antigen suspensions may help in immunological and therapeutic ventures in future.