B193 Screening of some Mexican medicinal plants for antibacterial activity

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Medicinal plants may offer a source of antibacterial agents for us, in this sense, in the present work we selected 15 Mexican plants traditionally used in the treatment of diarrhoea. Methanol and aqueous extracts were tested by quantitative testing of antibacterial activity. The following pathogenic bacterial cultures were used: *Escherichia coli*, two *Shigella sonnei* strains, two *Shigella flexneri* strains, three *Salmonella* strains, and *Vibrio cholerae*. The testing of the antibacterial activity was performed according to the microdilution method described by Galvan and Barry (1). The aqueous and methanol extracts from *Geranium mexicanum*, and *Punica granatum* were the most active against *S. flexneri* species and *V. cholerae* with MIC values ranging from 1 to 4 mg/ml. The methanol extract from *Thymus vulgaris* showed 100% inhibition towards all species tested when evaluated at 8 mg/ml. In general, the methanolic extracts were more active than aqueous extracts. These preliminary results from the evaluation of bacterial activity gave evidence of the probable presence of compounds of biological interest in the methanol extracts from *G. mexicanum*, *P. granatum*, and *T. vulgaris*.

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B194 Is the starch from *Solanum lycocarpum* St. Hill. fruits a hypoglicemic?

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Several Brazilian plants are used in the traditional medicine to treat diabetes (1). The starch obtained from the unripe fruits of *Solanum lycocarpum* St. Hill. (Solanaceae) has been widely used as a hypoglycemic in Brazil (2). *Per os* administration of the starch (1000 or 2000 mg/kg, twice daily for 7 days) did not change glycemia of non-diabetic mice evaluated on the 7th day. In streptozotocin-induced diabetic mice, chronic treatment with the starch (1000 or 2000 mg/Kg, twice daily for 7 days) did not change the elevated glycemia in the 7th day, 3 after the last dose. In animals fasted for 15 h, *per os* administration of glucose (600 mg/Kg) significantly increased glycemia 1 h later. Previous (–30 min) treatment of the animals with the starch (1000 or 2000 mg/Kg) did not change the increase of glycemia. *Per os* administration of the starch (1000 or 2000 mg/Kg. day, twice daily for 7 days) did not induce body weight gain or loss. In interviews with 56 diabetic patients, a total of 29 medicinal plants were reported as useful in the treatment of diabetes and *S. lycocarpum* was the sixth most mentioned. All the interviewed patients reported that they also used insulin or oral hypoglicemic drugs. The results do not offer any evidence of a hypoglycemic effect induced by the polysaccharide fraction of *S. lycocarpum*, both in normal and hyperglycemic mice. The results of the present study clearly represent an example of the need of an adequate pharmacological investigation of the natural products largely used by the population.

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