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Antimicrobial and phytochemical properties of *Alstonia boonei*, *Jatropha multifida* and *Rauvolfia vomitoria*

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The antimicrobial activities and phytochemical properties of Alstonia boonei, Jatropha multifida and Rauvolfia vomitoria L were studied using the impregnated disc diffusion technique. Seven clinical bacterial species viz: Staphylococcus aureus, Escherichia coli, Bacillus cereus, Pseudomonas aeruginosa, Streptococcus faecalis, Proteus vulgaris and Streptococcus pyogenes, and three fungal species viz: Candida albicans Aspergillus niger and Aspergillus flavus were used. The chloroform and hot water extracts of Alstonia boonei exerted zones of inhibition ranging from 6-10mm. Chloroform, ethanolic and hot water extracts of Rauvolfia vomitoria exerted zones of inhibition ranging from 5-10 mm. Also that of the ethanolic, cold and hot water extracts of Jatropha multifida ranged from 5-15 mm. Hot water extract of Alstonia boonei was active against Staphylococcus aureus, Escherichia coli, Streptococcus faecalis. Ethanolic extract of Rauvolfia vomitoria was active against Pseudomonas aeruginosa and Staphylococcus aureus. Also Bacillus cereus and Proteus vulgaris were susceptible to the ethanolic extract of Jatropha multifida. None of the extracts has antimicrobial activity against the fungal species likewise ethanolic and cold water extracts of Alstonia boonei; cold water extract of Rauvolfia vomitoria and chloroform extract of Jatropha multifida and which have no effect on none of the test isolates. The MIC values of the extracts ranged between 40 and 80 mg/ml. The three plants screened had similar phytochemicals except in few cases like saponnins, tannins, Keller-killiani and Liberman's test. None contains phlobatannins and anthraquinone. The statistical analysis at 95% level of significance showed that Jatropha multifida is most effective. All the three plants had broad spectrum antibacterial activities against one or more gram-positive and gram-negative bacteria. The antimicrobial activities and phytochemical properties of these extracts provide justification for the chemotherapeutic utilization of the plants and could serve as useful sources for new antimicrobial agents.

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Dietary fatty acids and inflammatory markers in patients with coronary artery disease

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A therosclerosis, with its major manifestation, coronary artery disease (CAD) is a chronic inflammatory disease. Dietary fatty acids intakes favorably effect on inflammatory responses. This study was conducted to examine the association between dietary fatty acid intakes and inflammatory markers, interleukin 6 (IL-6) and high sensitivity C-reactive protein (hs-CRP), in CAD patients among Iranian population. This hospital-based, cross-sectional study was conducted in Chamran Heart Hospital, Isfahan, Iran in 2012. Patients aged \geq 45 years with first ever symptomatic CAD confirmed by angiography were included. A semi-quantitative food frequency questionnaire (FFQ) was used to assess the usual intakes of dietary fatty acids. The energy-adjusted daily intakes (mean \pm SD) of saturated fatty acid (SFA), monounsaturated fatty acid (MUFA), linoleic acid, a-linolenic acid, and eicosapentaenoic acid and docosahexaenoic acid (EPA + DHA) were 27 \pm 9, 22 \pm 6, 21 \pm 5, 0.4 \pm 0.32, and 0.85 \pm 0.82 g/d; respectively. After adjustment for potential confounders, SFA was directly related to hs-CRP (P = 0.01) and IL-6 (P < 0.001) concentrations. Intakes of EPA+DHA and MUFA, were significantly adversely related to IL-6 (P = 0.08). No significant relationships were observed for other fatty acids, a-linolenic acid, and linoleic acid. These findings suggest that saturated fatty acids, EPA + DHA and MUFA were significantly related to IL-6 (P = 0.08). No significant relationships were observed for other fatty acids, a-linolenic acid, and linoleic acid. These findings suggest

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