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Assessment of factors which leads to irrational use of drugs among outpatients in Gondar town, North-Western Ethiopia

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Background: It is now evident that both developed and developing countries are experiencing many aspects of inappropriate use of drug in their health care facilities. There is also concern regarding the irrational use of drugs in Gondar town. These studies aimed to describe factors responsible for irrational drug use by outpatients, which consists of all categories of ages.

Objectives: To assess factors that leads to irrational use of drugs among outpatients in Gondar town.

Methods: A study was done in Gondar town, by administering a questionnaire for all volunteer outpatients to participate in the study. The questionnaire was structured based on the pretest, which was done. This study was patients based cross-sectional study. The study populations were outpatients who were selected by simple random sampling methods. Total samples of 385 outpatients were involved.

Result and discussion: Concerning the factors which lead to irrational use of drug among the respondents (outpatients), 216 (56.10%) respondents have given multiple responses. The major reasons for irrational drug use in majority of the society, which were responded by respondents includes; 287 (51.25%) rapid relief from illness, 162 (28.93%) unusual route of administration of drug, 108 (19.28%) unfavorable work time and work status to take the drug.

Conclusion: Irrational drug use practice by outpatient is not only risky on patient but also the state itself, so a great emphasis should be given on awareness creation to the community on RDU by improving the knowledge and attitudes about drugs in general which could be done by mass media or drug information program for the community.

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Protective effect of *Eucalyptus* oil in COPD-like rat model induced by LPS and *Klebsilla pneumonia*

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Eucalyptus oil, an essential oil isolated from *Eucalyptus* leaves, was examined for its possible influence on LPS and *Klebsilla pneumonia* induced COPD in rats. The COPD model was induced by instilling intratracheally with LPS and *Klebsilla pneumonia* (K.P, density, $\geq 6 \times 10^8$ CFU/mL). The test compound, *Eucalyptus* oil (30, 100 and 300 mg/kg), Prednisone Acetate (10 mg/kg) or vehicle was instilled intragastrically after three weeks exposure of LPS and K.P and lasted for 4 weeks. *Eucalyptus* oil significantly reduced amounts of inflammatory cells in bronchoalveolar lavage fluid (BALF) and blood, and significantly decreased bronchiolitis, alveolar destruction, emphysematous changes and thickness of bronchioles. It also significantly reduced the increased AB-PAS-positive goblet cells in bronchioles. Prednisone acetate also significantly attenuated pulmonary inflammation and airway mucus hypersecretion, but no significant difference was found in emphysema. *Eucalyptus* oil exerts its antioxidant activities and decreased the elevated MDA levels and increased the level of SOD in lung tissues. These findings suggest *Eucalyptus* oil as an active controller of airway inflammatory responses and oxidant stress in COPD rats. Further studies are in progress in order to elucidate the mechanisms. Our results provide evidence that *Eucalyptus* oil might have its potential to be a proper candidate drug in the treatment of COPD.

Biography

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