

## Effect of exposure to polluted air environment on lung function and respiratory findings in subjects exposed to crude oil spill into sea water

Sultan Ayoub Meo

King Saud University, Saudi Arabia

**Background:** The international community has been facing increasing risks due to major accidents occurring in the coastal areas. A Greek oil tanker, 'Tasman Spirit' ran aground causing oil spill into sea water along the coastal site of Karachi, Pakistan. The present study aims to investigate the effect of duration of exposure to polluted air environment on lung function and respiratory findings in subjects exposed to crude oil spill into sea water.

**Subject and Methods:** This was a matched cross-sectional study of Spirometry and respiratory findings in 50 male exposed subjects and similar numbers of control subjects. All participants were non-smokers, pulmonary function test was performed by using an electronic Spirometer and respiratory findings were observed by clinical examination.

**Results:** Subjects exposed to polluted air due to crude oil spill for the period greater than 15 days showed a significant reduction in Forced Vital Capacity [FVC], Forced Expiratory Volume in First Second [FEV<sub>1</sub>], Forced Expiratory Flow in 25-75% [FEF<sub>25-75%</sub>] and Maximal Voluntary Ventilation [MVV]. Furthermore, the polluted air exposed group had complaints of generally ill, cough, sore throat and runny nose relative to their matched controls.

**Conclusion:** Subjects exposed to polluted air environment due to crude oil spill have impaired lung function and this impairment was associated with duration of exposure to polluted air. These subjects also complained of generally ill, cough sore throat and runny nose, relative to their matched controls.

### Biography

Prof. Sultan Ayoub Meo is a medical graduate [MBBS] with higher postgraduate degrees [M.Phil] and Doctorate [PhD] in Physiology. He also received Fellowship (FRCP) of Royal College of Physicians of London, Dublin, Edinburgh, and Glasgow. In addition to achieve MBBS, M.Phil, Ph.D and four fellowships of highly respectable Royal Colleges of UK and Ireland, he also obtained higher postgraduate Diploma in Medical Education, University of Dundee, Scotland, UK. Prof. Meo has a teaching experience of about 18 years and actively involved in undergraduate and post graduate teaching and research. He has been appointed as a PhD supervisor and examiner College of Medicine, King Saud University. Prof. Meo is author of 8 books and published 70 scientific papers in peer reviewed national / International Journals. His area of interest in research is Respiratory Physiology, Diabetes Mellitus, Medical Education and Occupational and Environmental Medicine.

Prof. Meo is Associate Editor of International Journal of Diabetes Mellitus and he is also Editorial Board member for Saudi Medical Journal. Prof. Meo has been invited as a speaker to deliver talk in about 68 National / International conferences in different countries including Kingdom of Saudi Arabia, Kingdom of Bahrain, United Arab Emirates, Pakistan, China, UK and USA. Prof. Meo was also invited as a Key Note speaker in Dec 2011, by OMICS group in the Second World Congress on Diabetes and Metabolism in Philadelphia USA.

sultanmeo@hotmail.com