

## **CHRONIC (28 DAYS) CARDIOPULMONARY EFFECTS OF BLASR OVERPRESSURE**

VASSOUT,P.;DODD,K.T.;LAGUTCHIK,M.;JENKINS,E.;INNSKEEP,W.

Blast overpressure (BOP) or related thoracic impact injuries may be incurred in a number of scenarios. Injury as a consequence of blast exposure is confined primarily to the gas-containing structures of the body: respiratory tract, middle ear, gastrointestinal tract. Death is commonly associated with the formation of arterial air and/or fibrinous emboli that are believed to originate from the lung. Non-auditory BOP and blunt impact injury both result from forces acting directly on the body surfaces. Much is yet to be learned about the mechanisms, consequences, and treatment of non-auditory blast injury and appropriate information can only be gained by complex instrumentation of animals in controlled settings.

Work by Vassout et al. (1984) has shown that pulmonary injuries in swine exposed to freefield blast (peak pressure 28.5 psi, duration 2 ms) resolved in one month. While the lungs showed gross pathologic resolution of the pulmonary contusions, it is not known whether cardiopulmonary function and biochemical parameters were totally or partially recovered. A study was designed to evaluate cardiopulmonary and biochemical parameters for a 28 day period.