

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

## البحث الثاني عشر

بحث مشترك. منشور غير مستخلص من رسالة علمية

عنوان البحث:

Role of fiberoptic bronchoscopy in management of smoke inhalation lung injury.

### **Abstract:**

**Introduction:**Smoke-inhalation injury (SII) is an unfavorable prognostic sign and a major cause of mortality in burn patients. Subsequently, it is important to diagnose early, determine accurately the injuries severity and to intervene early in these patients.

**Objective:** The objective of the present study is to evaluate the role of fiberoptic bronchoscopy (FOB) in management of SII as early diagnostic and prognostic tool.

**Patients and methods:** 57 patients suspected clinically to have SII were evaluated by submitting them to FOB. The following data were collected: total number of ventilator days, duration of intensive care unit (ICU) stay, pneumonia development, and patient outcome.

**Results:** 39 patients of 57 studied patients (68.4%) were proved bronchoscopically to have SII. Significant correlations were noted between bronchoscopic scoring and development of pneumonia ( $R^2 = 0.344$ ;  $P < 0.001$ ), total number of ventilator days ( $R^2 = 0.479$ ;  $P < 0.0001$ ) and ICU-stay ( $R^2 = 0.211$ ;  $P = 0.01$ ). Receiver operating characteristic curve analysis showed that an admission grade  $\geq 3$  of bronchoscopic grading of SII predicted pneumonia development with a

**sensitivity of 77, %specificity of 92%, positive predictive value (PPV) of 85%, and negative predictive value (NPV) of 88%.**

**Conclusion: FOB may have a great value in evaluation, predicting prognosis and management of smoke inhalation lung injury. FOB obtained within few hours of admission was predictive of the total number of ventilator days and ICU-stay days and the development of pneumonia in patients with SII.**