Reviewer's report

Title: Morbidity associated with systemic corticosteroid preparation for coronary artery bypass grafting in patients with chronic obstructive pulmonary disease: a case control study

Version: 1 Date: 21 November 2006

Reviewer: Argyris Michalopoulos

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Re: Morbidity associated with systemic corticosteroid preparation for coronary artery bypass grafting in patients with COPD: a case control study

Comments to the authors

The authors Starobin et al, from Tel Aviv University, performed a prospective case-control study in COPD patients undergoing elective CABG surgery. Sixty patients were randomly assigned to receive a single dose of corticosteroid IM or placebo while 30 patients without history of COPD served as controls. The authors examined several postoperative variables such as complications, length of stay in both ICU and hospital, and duration of mechanical ventilation in all groups.

Major comments:

1. The authors report in the methods section that only abnormal PFTs values as inclusion criteria for COPD patients were used. However, the diagnosis of chronic bronchitis is based on the co-existence of two conditions: (1) history of productive cough, for a minimum of 3 months each year, for at least 2 successive years, that could not be attributed to other pulmonary or cardiac causes and (2) airway obstruction associated with wheezing on forced expiration and FEV1 less than 80% of predicted (with normal FVC value) and/or a FEV1/FVC ratio less than 75% of the predicted value [Fletcher, C.M., Pride, N.B.: Definitions of emphysema, chronic bronchitis, asthma, and airflow obstruction; 25 years on from the Ciba symposium. Thorax 39:81, 1984]. In addition, the diagnosis of pulmonary emphysema is based on a detailed history, physical examination, chest X-ray findings, and abnormal PFT values suggesting airway obstruction as defined by the ATS recommendations [ATS Statement: Standards for the diagnosis and care of patients with chronic obstructive pulmonary disease. Definitions, epidemiology, pathophysiology, diagnosis, and staging {Respir. Crit. Care Med. 1995; 152: S78].


3. The authors did not use severity classification criteria for COPD. A patient with history of chronic bronchitis with a FEV1 % predicted values 69% is totally different compared with a patient with pulmonary emphysema with FEV1 % predicted values 35%.

4. Michalopoulos et al found that patients with a history of mild or moderate COPD undergoing elective CABG surgery had morbidity and mortality rates comparable with those of controls (p > 0.05) [World J Surg 2001; 25: 1507-1511].


6. The authors did not report if they used bronchodilators perioperatively in their patients.

7. In table 2, the authors did not report reference for the specific severity classification of COPD.

8. The authors should explain why the control group had prolonged ICU stay and mechanical ventilatory support compared to the diprospan group, although both had similar rate of pulmonary and non-pulmonary
complications.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.