Critical Care

119. Clinical Profile of ICU Patients in Special Reference with ABG Analysis

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Aim of Study: Study of acid-base disturbance in critically ill patients having medical problems admitted in medical ICU and given ventilatory support by mechanical ventilation.

Method: Study of 50 critically ill patients having medical problems whose ABG was done and ventilatory support given by mechanical ventilation were included. The particulars of patients, indication for ABG and mechanical ventilation, details of clinical examinations and investigations were noted. All patients received adequate treatment according to the underlying etiology and supportive treatment was given.

Results: The indication for ABG and mechanical ventilation in 50% of the patients were neurological emergencies in the form of GB syndrome, tetanus, neuroparalytic snakes bite and cerebrovascular stroke. While in 16% indication was acute respiratory failure complicating pulmonary disease other than COPD. The remaining were poisoning and acute exacerbation of COPD. The most common acid base disturbance pattern was respiratory acidosis followed by respiratory alkalosis and mixed acid-base disorders and metabolic acidosis respectively. The overall survival rate was 58%. Survival rate is more in patients having PaO₂ >60 mmHg (75.86%) and bicarbonate >18 mEq/L as compared to PaO₂ ≤ 60 mm Hg and bicarbonate ≤ 18 mEq/L respectively. Survival rate is more (61.9%) in patients having serum creatinine <2 mg/dl. The survival rates in neurological emergencies (64%) and poisoning (57.14%) were better than in COPD (16.67%) and other pulmonary diseases.

Conclusion: Blood gas determination provides the physician with detailed information regarding cardiopulmonary and metabolic homeostasis in the critically ill patients and is helpful in disclosing additional abnormalities not suspected by clinical evaluation. In ICU patients out come is good especially in reversible conditions not primarily involving lungs.

We report a retrospective overview of clinical profile of 23 cases of cardiac tamponade presenting at our hospital, over a period of two years (June 01 to May 03). Mean period of follow up 10 months (range 20 months to 1 month). There were 12 men and 11 women. Age range was 10 years to 62 years (mean: 43.2 years). The chief complaint at presentation was breathlessness in 22 patients (95.65%). Other complaints were chest pain (78.26%), extreme weakness (39.1%), palpitations (34.8%), fever (34.8%), pre-syncope (26.1%), cough (17.4%) and swelling of the body (13%). Pulsus paradoxus and raised JVP were prominent clinical signs in all patients. Hypotension was recorded in 19 patients (82.6%). Cardiomegaly was present in 22 patients. Sinus tachycardia was seen in 20, low voltage complexes in 18, atrial fibrillation in one, antero-septal myocardial infarction in one and two had left ventricular hypertrophy on ECG. 2D-Echo was done and large effusion was seen in 12 patients and moderate effusion was in 10 patients. Diastolic collapse of right atrium (23) and right ventricle (18) and swinging heart (2) was recorded. Emergency bedside pericardiocentesis was done in all cases blindly without any complications. Aspirate was hemorrhagic in 17 and clear in six patients varying from 200 ml to 1200 ml. Only two patients needed catheter drainage for more than 24 hours. The etiology was tubercular in 10 (43.7%), chronic renal failure (CRF) in 5 (21.73%), viral in three patients, hypothyroidism, malignancy, rheumatoid arthritis, acute myocardial infarction and systemic lupus erythematoses (SLE) in one patient each. Four patients were lost to follow-up, 2 CRF patients underwent renal transplantation. Three had recurrence but were not in tamponade (two were CRF patients). Nine out of ten patients completed ATT (short term chemotherapy) with steroids successfully. One patient underwent pericardiectomy for recurrent pericardial effusion and diagnosed as SLE on histopathology and serology. She responded to steroids. No evidence of constriction in the follow-up.

Conclusion: Cardiac tamponde is essentially a clinical diagnosis and 2D-Echo Doppler study is done routinely to confirm the diagnosis. Etiology tuberculosis remains predominant cause in our country although CRF was second commonest in series. A referral bias cannot be excluded. Pericardiocentesis is a blind but safe bedside procedure.