

ABSTRACT

Patients with critical conditions, required very strict hemodynamic monitoring that can not be given in a general maintenance, so that the necessary treatment in an intensive unit with the goal of reducing morbidity and mortality. Intensive care room is equipped with specialized equipment such as ventilators. In patients with hemodynamic monitoring required the installation of ventilators, one of which is by monitoring the central venous pressure (CVP).

PEEP on the ventilator is used to maintain positive airway pressure on the expiratory phase in order to prevent atelectasis and to improve the diffusion process. PEEP may cause an increase in intra-thoracic pressure, which leads to increased central venous pressure. Until now, there still exists a difference in perception about the effect of PEEP on CVP, and yet there is one special provision that is used to assess the results of CVP measurement associated with the use of PEEP. So, with this phenomenon, are interested in doing research. The study was conducted in room GICU RSUP Dr. Hasan Sadikin Bandung from May to early July 2011 with the number of samples as many as 27 people.

The purpose of this research in general is to determine the effect of PEEP on changes in the value of CVP in patients with the installation of ventilators, and in particular is to know the different rates of change and CVP values in patients given PEEP 5, 10, and 15 on the ventilator. The design of this study was quasi-experimental research design using a one-group pretest and posttest design. The selection of samples with consecutive sampling of patients who met inclusion and exclusion criteria, the statistical tests used are parametric statistics using ANOVA (Analysis Of Variance).

The study found that PEEP can increase the value of CVP in patients with ventilator installation. The mean value of CVP prior to the increase in PEEP (5 cmH₂O) and after increasing PEEP I and II (10 and 15 mH₂O) are as follows: 7.22 increased to 9.22 mmHg, and further increased at PEEP 15 cmH₂O, namely to 11, 37 mmHg. The difference between the average value of CVP with PEEP 5 PEEP 10 was 2.0 mmHg obtained p value 0.028 ($p < 0.05$). The difference between the average value of CVP with PEEP 15 PEEP 10 mmHg is obtained p value 2.148 0.016 ($p < 0.05$). So it can be concluded, there were significant differences in both CVP values increased PEEP is done. The conclusions of this study is the PEEP can increase the value of CVP, because during the study was conducted, all respondents did not have any intervention, including fluid resuscitation.

Keywords: CVP, increased the value of CVP, PEEP, and ventilator