

ABSTRACT

The Combination of Tripod Position and Balloon Blowing Exercise on Oxygen Saturation in COPD Patients at Sakinah Islamic Hospital Mojokerto

BY: SYEIRA TRINA ZARINA

Chronic Obstructive Pulmonary Disease (COPD) is a chronic lung disease characterized by progressive airflow obstruction, leading to impaired ventilation and gas exchange, which in turn leads to decreased oxygen saturation. Decreased oxygen saturation can worsen the patient's condition and increase the risk of complications. One non-pharmacological intervention that can be performed is a combination of tripod position and balloon blowing exercise. This study aims to analyze the effect of the combination of tripod position and balloon blowing exercise on oxygen saturation in COPD patients at the Lung Polyclinic Clinic of RSI Sakinah Mojokerto. This study used a pre-experimental design with a one-group pretest and posttest approach. The study sample consisted of 50 COPD patients selected using consecutive sampling techniques according to the study's inclusion criteria. Oxygen saturation was measured using a pulse oximeter before and after the administration of the combination of tripod position and balloon blowing exercise. Data were analyzed using the Wilcoxon Signed Rank Test. The results showed that the average oxygen saturation (SpO_2) before the intervention was 93.72% and increased to 95.02% after the intervention with a difference of 1.30%. The results of the Wilcoxon Signed Rank Test showed a Z value of -5.811 and p-value of 0.000 ($p < 0.05$), so there is an effect of the combination of tripod position and balloon blowing exercise on increasing oxygen saturation in COPD patients at the Lung Polyclinic of RSI Sakinah Mojokerto. Tripod position helps optimize diaphragm function and increase lung expansion, while balloon blowing exercise helps extend the expiratory phase, reduce air trapping, and increase alveolar ventilation so that it can increase oxygen saturation.

Keywords: balloon blowing, COPD, oxygen saturation, tripod position.

BINA SEHAT PPNI

ABSTRAK

KOMBINASI *TRIPOD POSITION* DAN *BALLOON BLOWIN EXERCISE* TERHADAP SATURASI OKSIGEN PADA PASIEN PPOK DI RSI SAKINAH MOJOKERTO

OLEH: SYEIRA TRINA ZARINA

Penyakit Paru Obstruktif Kronik (PPOK) merupakan penyakit paru kronis yang ditandai dengan hambatan aliran udara progresif sehingga menyebabkan gangguan ventilasi dan pertukaran gas yang berdampak pada penurunan saturasi oksigen. Penurunan saturasi oksigen dapat memperburuk kondisi pasien dan meningkatkan risiko komplikasi. Salah satu intervensi nonfarmakologis yang dapat dilakukan adalah kombinasi *tripod position* dan *balloon blowing exercise*. Penelitian ini bertujuan untuk menganalisis pengaruh kombinasi *tripod position* dan *balloon blowing exercise* terhadap saturasi oksigen pada pasien PPOK di Poli Paru RSI Sakinah Mojokerto. Penelitian ini menggunakan desain pra-eksperimental dengan pendekatan one group pretest dan posttest. Sampel penelitian berjumlah 50 pasien PPOK yang dipilih menggunakan teknik *consecutive sampling* sesuai kriteria inklusi penelitian. Saturasi oksigen diukur menggunakan pulse oximeter sebelum dan sesudah pemberian kombinasi *tripod position* dan *balloon blowing exercise*. Data dianalisis menggunakan uji Wilcoxon Signed Rank Test. Hasil penelitian menunjukkan bahwa rata-rata saturasi oksigen (SpO_2) sebelum intervensi sebesar 93,72% dan meningkat menjadi 95,02% setelah intervensi dengan selisih peningkatan sebesar 1,30%. Hasil uji Wilcoxon Signed Rank Test menunjukkan nilai $Z = -5,811$ dan $p\text{-value} = 0,000$ ($p < 0,05$), sehingga disimpulkan terdapat pengaruh kombinasi *tripod position* dan *balloon blowing exercise* terhadap peningkatan saturasi oksigen pada pasien PPOK di Poli Paru RSI Sakinah Mojokerto. *Tripod position* membantu mengoptimalkan kerja diafragma dan meningkatkan ekspansi paru, sedangkan *balloon blowing exercise* membantu memperpanjang fase ekspirasi, mengurangi *air trapping*, dan meningkatkan ventilasi alveolar sehingga dapat meningkatkan saturasi oksigen.

Kata kunci: *balloon blowing exercise*, PPOK, saturasi oksigen, *tripod position*

BINA SEHAT PPNI