

## FACTORS AFFECTING THE LEVEL OF POSTOPERATIVE THROAT PAIN ON THE USE OF ENDORACHEAL TUBE IN NEUROSURGERY PATIENTS

Khusnul Amelia<sup>1</sup>, Yustiana Olfah<sup>2</sup>, Jenita Doli Tine Donsu<sup>3</sup>,  
Anesthesiology Nursing Department, Health Polytechnic,  
Ministry of Health, Yogyakarta

Jl. Tatabumi No.3 Banyuraden, Gamping, Sleman  
E-mail: [Khusnulamelia99@gmail.com](mailto:Khusnulamelia99@gmail.com)

### ABSTRACT

**Background:** The act of intubation can cause complications in the form of throat pain, postoperative throat pain can affect several aspects, namely pain, itching in the throat and pain to swallow. Postoperative throat pain experienced by patients is influenced by several factors, namely age, sex, smoking history, duration of use of ETT, size of ETT, and cuff pressure.

**Objective:** to determine the factors that affect the level of postoperative throat pain on the use of endotracheal tube in neurosurgery patients at RSUD Prof. Dr. Margono Soekarjo Purwokerto.

**Method:** Type of quantitative research with observational design using cross-sectional design. Patients are given a posttest using the NRS (numeric twig scale). This study was conducted from February to March 2024 with sampling using consecutive sampling techniques as many as 80 respondents in neurosurgery patients. Data analysis using Chi Square and Logistics Regression.

**Results:** respondents who experienced severe pain levels were 43 people (53.8%). Chi Square test results obtained significant values of age ( $p = 0.027$ ), gender ( $p = 0.048$ ), duration of use of ETT ( $p = 0.007$ ), ETT size ( $p = 0.001$ ), and cuff pressure ( $p = 0.000$ ). The results of the Cuff pressure Logistic Reggretion test have the highest OR, amounting to 6.565 (0.000) followed by other variables, namely age (OR 0.064;  $p = 0.027$ ), sex (OR 4.021;  $p = 0.048$ ), duration of use of ETT (OR 1.956;  $p = 0.007$ ), ETT size and (OR 2.455;  $p = 0.001$ ).

**Conclusion:** age, sex, duration of use of ETT, size of ETT, cuff pressure can affect the level of postoperative throat pain on the use of endotracheal tube in neurosurgery patients. Smoking history factors cannot influence the level of postoperative throat pain against endotracheal tube use in neurosurgery patients.

**Keywords:** Throat pain, endotracheal intubation, postoperative, pain factor.

## **FAKTOR-FAKTOR YANG MEMPENGARUHI TINGKAT NYERI TENGGOROKAN PASCA OPERASI TERHADAP PENGGUNAAN ENDORACHEAL TUBE PADA PASIEN BEDAH SARAF**

Khusnul Amelia<sup>1</sup>, Yustiana Olfah<sup>2</sup>, Jenita Doli Tine Donsu<sup>3</sup>  
Jurusan Keperawatan Anestesiologi Poltekkes  
Kemenkes Yogyakarta

Jl. Tatabumi No.3 Banyuraden, Gamping, Sleman  
Email: [Khusnulamelia99@gmail.com](mailto:Khusnulamelia99@gmail.com)

### **ABSTRAK**

**Latar Belakang :** Tindakan intubasi dapat menyebabkan komplikasi berupa nyeri tenggorokan, nyeri tenggorokan pasca operasi dapat mempengaruhi beberapa aspek yaitu rasa nyeri, gatal tenggorokan dan rasa nyeri untuk menelan. Nyeri tenggorokan pasca operasi yang dialami pasien dipengaruhi oleh beberapa faktor yaitu usia, jenis kelamin, riwayat merokok, lama pemakaian ETT, ukuran ETT, dan tekanan cuff.

**Tujuan :** mengetahui faktor yang mempengaruhi tingkat nyeri tenggorokan pasca operasi terhadap penggunaan endotracheal tube pada pasien bedah saraf di RSUD Prof. Dr. Margono Soekarjo Purwokerto.

**Metode :** Jenis penelitian kuantitatif dengan desain observasional menggunakan desain *cross-sectional*. Pasien diberikan posttest menggunakan skala ukur NRS (*numeric rating scale*). Penelitian ini dilaksanakan dari bulan Februari hingga Maret 2024 dengan pengambilan sampel menggunakan teknik *consecutive sampling* sebanyak 80 responden pada pasien bedah saraf. Analisis data menggunakan Chi Square (X<sup>2</sup>) dan Regresi Logistik.

**Hasil :** Responden yang mengalami tingkat nyeri berat yaitu sebanyak 43 orang (53,8%). Hasil uji *Chi Square* didapatkan nilai signifikan umur ( $p=0,027$ ), jenis kelamin ( $p=0,048$ ), lama pemakaian ETT ( $p=0,007$ ), ukuran ETT ( $p=0,001$ ), dan tekanan cuff ( $p=0,000$ ). Hasil uji *Logistic Regression* tekanan cuff memiliki OR paling tinggi, sebesar 6,565 (0,000) diikuti oleh variable lain yaitu umur (OR 0,064;  $p=0,027$ ), jenis kelamin (OR 4,021;  $p=0,048$ ), lama pemakaian ETT (OR 1,956;  $p=0,007$ ), ukuran ETT dan (OR 2,455;  $p=0,001$ ).

**Kesimpulan :** Faktor usia, jenis kelamin, lama pemakaian ETT, ukuran ETT, tekanan cuff dapat mempengaruhi tingkat nyeri tenggorokan pasca operasi terhadap penggunaan endotracheal tube pada pasien bedah saraf. Faktor riwayat merokok tidak dapat mempengaruhi tingkat nyeri tenggorokan pasca operasi terhadap penggunaan endotracheal tube pada pasien bedah saraf.

**Kata Kunci :** Nyeri Tenggorokan, Intubasi endotracheal, paska operasi, faktor nyeri.