

**MANAGEMENT OF HYPERVENTILATION TO DECREASE  
INTRACRANIAL PRESSURE IN CEREBRARY TUMOR PATIENTS AT  
NTB PROVINCIAL HOSPITAL**

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**ABSTRACT**

**Background:** Hyperventilation is one way to reduce cerebral blood flow. The use of hyperventilation can reduce the increase in intracranial pressure (ICP). Intracranial pressure is the pressure that exists in the brain and cerebrospinal fluid (CSF).

**Objective:** To find out how much influence the role of hyperventilation has on reducing intracranial pressure in intra-anesthesia neurosurgery patients at the NTB Provincial Regional Hospital.

**Method:** The research method uses case reports with 2 cases, namely Mr. K and Mr. M. by reviewing assessment, enforcement of anesthesia health problems, intervention planning, implementation, and evaluation. Similarities or differences between theory, previous research results, and real cases in practice will be considered when providing administrative services.

**Results:** Study of Mr. K was found to have complained of severe headaches since 1 day before MRS, while Mr. M was found to have complained that the patient had been experiencing headaches since 3 months ago and had been getting worse for 1 week. Health problems caused by anesthesia impacted both patients, including RK, causing increased intracranial pressure due to increased pressure in the cerebral blood vessels beyond normal levels.

**Conclusion:** Anesthesiology nursing care determined that this problem be resolved based on the patient's final results, showing no increase in intracranial pressure. Monitoring end tidal CO<sub>2</sub> with hyperventilation can help manage this risk.

**Keywords:** *Hyperventilation, Decreased Intracranial Pressure, Cerebral Tumor*

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# **PENATALAKSANAAN HIPERVENTILASI TERHADAP PENURUNAN TEKANAN INTRACRANIAL PADA PASIEN TUMOR CEREBRI DI RSUD PROVINSI NTB**

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## **ABSTRAK**

**Latar belakang:** Hiperventilasi merupakan salah satu cara untuk menurunkan aliran darah otak. Penggunaan hiperventilasi dapat mengurangi peningkatan tekanan intrakranial (*intracranial pressure/ICP*). Tekanan intrakranial adalah tekanan yang terdapat pada otak dan cairan serebrospinal (CSS).

**Tujuan:** Untuk mengetahui seberapa besar pengaruh peranan hiperventilasi terhadap penurunan tekanan intracranial pada pasien bedah saraf intra anestesi di RSUD Provinsi NTB.

**Metode:** Metode penelitian menggunakan laporan kasus dengan 2 kasus yaitu Tn. K dan Tn. M. dengan mengkaji pengkajian, penegakan masalah kesehatan anestesi, perencanaan intervensi, implementasi, dan evaluasi. Persamaan atau perbedaan antara teori, hasil penelitian sebelumnya, dan kasus nyata dalam praktik akan dipertimbangkan saat memberikan pelayanan administratif.

**Hasil:** Pengkajian pada Tn. K ditemukan keluhan nyeri kepala hebat sejak 1 hari sebelum MRS, sedangkan pada Tn. M ditemukan keluhan pasien mengalami nyeri kepala sejak 3 bulan yang lalu dan memberat sejak 1 minggu. Masalah kesehatan yang disebabkan oleh anestesi berdampak pada kedua pasien, termasuk RK, yang menyebabkan peningkatan tekanan intrakranial karena peningkatan tekanan di pembuluh darah otak melebihi tingkat normal.

**Kesimpulan:** Asuhan keperawatan anestesiologi menentukan bahwa masalah ini diselesaikan berdasarkan hasil akhir pasien, tidak menunjukkan peningkatan tekanan intrakranial. Memantau CO<sub>2</sub> end tidal dengan hiperventilasi dapat membantu mengelola risiko ini.

**Kata kunci :** Hiperventilasi, Penurunan Tekanan Intracranial, Tumor Cerebri

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