Hubungan Diameter Selubung Saraf Optik terhadap Tekanan Intrakranial Pascabedah Kraniotomi Pasien Cedera Otak Traumatik di Intensivecareunit ICU Rumah Sakit Umum Dr. Zainoel Abidin = Correlation Optic Nerve Sheart Diameter with Intracranial Pressure in Post Craniotomy Surgery Patient with Traumatic Brain Injury at Dr. Zainoel Abidin General Hospital

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Abstrak

Latar Belakang :Peningkatan TIK adalah keadaan darurat medis yang berpotensi menimbulkan iskemia serebral, herniasi otak dan kematian. Penyebab TIK meningkat diantaranya trauma dengan edema serebral, perdarahan intrakranial dan tumor. Pengawasan TIK diperlukan untuk mencegah kematian pascabedah kraniotomi, salah satunya dengan evaluasi DSSO. Metode pemeriksaan TIK ini bersifat noninvasive dan belum umum dilaporkan terhadap pasien cedera otak traumatik pascabedah kraniotomi.Tujuan :Mengetahui hubungan DSSO terhadap peningkatan tekanan intrakranial pasca bedah kraniotomi pada pasien cedera otak traumatikMetode :Penelitian dengan design cross sectional. Pengambilan sampel secara consecutive terhadap pasien trauma kepala yang telah menjalani bedah kraniotomi. Pemeriksaan DSSO dilakukan untuk menilai diameter selubung saraf optik. pemeriksaan Transcranialdoppler dilakukan untuk mengetahui pulsatilityindex PI sehingga dapat ditentukan nilai tekanan intrakranial dengan rumus GoslingIndex TIK= 11,1x PI -1,43 . Uji independent T dilakukan untuk mengetahui perbedaan rerata DSSO terhadap TIK meningkat. Uji ROC dilakukan untuk mengetahui cut off point, sensitifitas dan spesifisitas DSSO.Hasil :Terdapat 40 subjek trauma kepala yang menjalani bedah kraniotomi. Jenis kelamin terbanyak adalah laki-laki 57,5 , perdarahan intraserebral adalah bentuk cedera otak yang terbanyak 57,7 dan subdural hematoma 30 . Rerata DSSO adalah 5,46 SD 0,80 dan TIK 12,60 mmHg SD 4,80 pasien pascabedah kraniotomi. Perbandingan antara Nilai DSSO TIK meningkat 6,06 mm SD 0,66 menunjukkan nilai yang lebih tinggi dibandingkan TIK normal rerata 5,20mm SD 0,72 dimana nilai P menunjukkan perbedaan signifikan P=0,001 . Nilai DSSO>5,40 memiliki sensitifitas 91,7 dan spesifisitas 64,3 dalam menentukan TIK meningkat pascabedah kraniotomi.Kesimpulan :DSSO berperan dalam peningkatan TIK pasca bedah kraniotomi. Kata kunci :DSSO, TIK, kraniotomi

.....Background The increased of ICP is a medical emergency that potentialy cause cerebral ischemia, brain herniation and death. The cause of increasing ICP including trauma with cerebral edema, intracranial hemorrhage and tumor. Observation of ICP is needed to prevent death after craniotomy surgery. One of the methods to observe ICP is using ONSD. This method is a noninvasive method for evaluate the increased of ICP but has not been commonly reported in patient with traumatic brain injury after craniotomy surgery.Objectives Tofind out the correlation between ONSD and the increased intracranial pressure post craniotomy surgery in patient with traumatic brain injury.Method This research is using cross sectional design method. The sample is selected consecutively towards patient with traumatic brain injury after craniotomy surgery. The ONSD examination is performed to determine the diamater of optic nerve sheath. The transcranial doppler examination is performed to determine the pulsatility index PI that can be used to know the value of ICP with Gosling index ICP 11,1 x PI 1,43 . Independent T test is performed to determine

the mean difference of ONSD and the increased of ICP, the ROC test is performed to determine cut off point of ONSD 39 s sensitivity and specificity.Results There were 40 head trauma subjects who have undergone craniotomy. The most common sex were male 57.5 , intracerebral hemorrhage was the most common form of brain injury 57.7 and subdural hematoma 30 . The mean ONSD was 5.46 SD 0.80 and ICP 12.60 mmHg SD 4.80 in postoperative craniotomy patients. Comparison between ONSD and ICP show, there rsquo s increasing ONSD values 6.06 mm SD 0.66 for increasing ICP subject and it has higher values than the normal average ICP with 5.20 mm SD 0.72 . P values showed significant differences P 0.001 of ONSD and ICP. The value of ONSD 5.40 has sensitivity of 91.7 and specificity of 64.3 to determining increased ICP post craniotomy surgery.Conclusion ONSDhas role for the increased of ICP post craniotomy surgery.