

ABSTRAK

Pendahuluan. Studi saat ini bertujuan untuk mengidentifikasi apakah pengukuran ultrasonografi transorbital diameter selubung saraf optik atau *optic nerve sheath diameter* (ONSD) memiliki korelasi terhadap tekanan intrakranial (TIK).

Metode. Penelitian ini merupakan studi kohort pada pasien anak dengan diagnosis hidrocefalus dan menjalani prosedur diversifikasi cairan serebrospinal di Bagian Bedah Saraf RSUP Dr. Hasan Sadikin Bandung. Pengukuran ONSD dilakukan sebelum pengukuran TIK invasif pada anak-anak di bawah anestesi umum. Akurasi diagnostik pengukuran ONSD dibandingkan dengan tekanan bukaan intraventrikular.

Hasil. Data dari 30 anak dianalisis. Terdapat korelasi antara pengukuran ONSD terhadap tekanan bukaan intraventrikular pada pasien anak dengan hidrocefalus yang dilakukan tindakan ventrikulostomi di Departemen Bedah Saraf Rumah Sakit Hasan Sadikin Bandung.

Pembahasan. Studi kami meneliti kohort pasien yang dilaporkan saat ini dalam literatur dimana pengukuran ONSD secara langsung dibandingkan dengan pengukuran tekanan bukaan intraventrikular invasif.

Simpulan. Teknik pengukuran ultrasonografi transorbital ONSD dapat berfungsi sebagai platform untuk memperkirakan tekanan intrakranial pada anak-anak yang mengalami hidrocefalus.

Kata kunci. Ultrasonografi transorbital, ONSD, tekanan bukaan intraventrikular

ABSTRACT

Introduction. *The current study aimed to identify whether transorbital ultrasonographic measurements of optic nerve sheath diameter (ONSD) could correlate with intracranial pressure (ICP).*

Methods. *This research is a cohort study in pediatric patients with a diagnosis of hydrocephalus and undergoing cerebrospinal fluid diversion procedures at the Neurosurgery Department of Dr. Hasan Sadikin Bandung. ONSD measurements were performed before invasive ICP measurements in children under general anesthesia. Diagnostic accuracy of ONSD measurements compared to intraventricular opening pressure.*

Results. *Data from 30 children were analyzed. There is a correlation between measurements of Optic Nerve Sheath Diameter and intraventricular opening pressure in pediatric patients with hydrocephalus who underwent ventriculostomy at the Department of Neurosurgery, Hasan Sadikin Hospital, Bandung.*

Discussion. *Our study examines the largest reported cohort of patients currently in the literature. Our study examined a cohort of patients reported recently in the literature in which ONSD measurements were directly compared to invasive intraventricular opening pressure measurements.*

Conclusion. *The results of this study is the ONSD transorbital ultrasound measurement technique can serve as a platform for estimating intracranial pressure in children with hydrocephalus.*

Keyword. *Transorbital ultrasonographic, ONSD, ICP*

