



PUSAT STUDI
BIOETIK DAN
HUKUM KEDOKTERAN ISLAM

Disponsori oleh:



Metode Intervensi Intra Arterial Heparin Flushing (IAHF):

Tinjauan Medis, Etis, Sosiologis, Politis, Bioetik Islam dan Hukum

SABTU

23 April 2022

07.00 - 12.00 WIB

via  zoom

PENGALAMAN PRAKTEK DSA SEBAGAI METODE DIAGNOSTIK DAN TERAPI INTERVENSI DI RSUP DR SARDJITO: TINJAUAN KASUS DAN EBM
dr. Bagaswoto Poedjomartono, Ph.D., Sp.Rad(K), Sp.KN., MKes., FICA.

Curriculum Vitae



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Position:

1. Head of Program Study Radiology Faculty of Medicine GMU (2001-2006)
2. Head of Nuclear Medicine Services, Dept. Radiology Dr. Sardjito GH.
3. Lecturer of Medical Education, Faculty of Medicine GMU
4. Consultant of Radiology Interventional Treatment Services
5. Ketua Komite Etik RS Siloam Yogyakarta

Post Position:

Lecturer FK-UGM Th. 1981-skr
Head of Radiology Department FK-UGM Th. 2001-2005
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Head of Program Studi Radiologi FK-UGM Th. 2005-2010
Head of Nuclear Medicine Services, Inst Radiology RSUP Dr. Sardjito Yogyakarta. Th. 2001-2018
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Penghargaan

1. Piagam Tanda Kehormatan Republik Indonesia: Satyalencana Karya Satya 10 th. dari Presiden RI.
2. Piagam Tanda Kehormatan Republik Indonesia: Satyalencana Karya Satya 20 th. dari Presiden RI.
- 3 "Doctor Indonesian Award" from Yayasan ANUGERAH PRFESIONAL Indonesia, Friday, March 28, 2008 in Hotel Santika, Jogjakarta.
4. As "Head of Program Study of Radiology" from Pusat Profil dan Biografi Indonesia, in Hotel Grand Aquilla Bandung, Friday, November 30, 2007.
5. As "Man and Women of the Year 2007" from YPKP, in Twin Plaza Hotel Jakarta, Novemper 6, 2007.
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PENGALAMAN PRAKTEK DSA SEBAGAI METODE DIAGNOSTIK DAN TERAPI INTERVENSI DI RSUP DR SARDJITO: TINJAUAN KASUS DAN EBM

Bagaswoto Poedjomartono

Departemen Radiologi FKKMK-UGM/RSUP Dr. Sardjito

Yogyakarta

Apakah Heparin Itu?

- **Heparin** adalah obat untuk mengatasi dan mencegah penggumpalan darah yang disebabkan oleh kondisi atau tindakan medis tertentu. Obat ini tersedia dalam bentuk gel dan suntik yang penggunaannya harus sesuai resep dokter. **Heparin** bekerja dengan cara menghambat kerja protein yang berperan dalam proses pembekuan darah. 12 Nov 2020

APA FUNGSI HEPARIN ITU?

Heparin Reduces Neurological Impairment After Cerebral Arterial Air Embolism in the Rabbit

Keon Hee Ryu, Bradley J. Hindman, Daniel K. Reasoner, Franklin Dexter

- <https://doi.org/10.1161/01.STR.27.2.303>
- Stroke. 1996;27:303-310
- Originally published February 1, 1996

- **Abstract**

- *Background and Purpose* Neurological injury after cerebral air embolism may be due to thromboinflammatory responses at sites of air-injured endothelium. Because heparin inhibits multiple thromboinflammatory processes, we hypothesized that heparin would decrease neurological impairment after cerebral air embolism.

- *Methods* To first establish a dose of air that would cause unequivocal neurological injury, anesthetized New Zealand White rabbits received either 0, 50, 100, or 150 $\mu\text{L}/\text{kg}$ of air into the internal carotid artery ($n=5$ in each group). One hour later, anesthesia was discontinued. Animals were neurologically evaluated at 24 hours with the use of a scale ranging from 0 (normal) to 97 (coma) points. In a subsequent experiment, anesthetized rabbits received either heparin ($n=17$) or saline ($n=15$) 5 minutes before air injection (150 $\mu\text{L}/\text{kg}$). Heparin was given as a 200-IU/kg bolus and followed by a constant infusion of $75 \text{ IU} \cdot \text{kg}^{-1} \cdot \text{h}^{-1}$ for 2 hours. Equal volumes of saline were given to control rabbits. Two hours later, anesthesia was discontinued. Animals were neurologically evaluated 24 hours after air embolism.

- *Results* There was a monotonic relationship between dose of air and severity of neurological impairment at 24 hours ($P=1.1 \times 10^{-7}$). Animals receiving 150 $\mu\text{L}/\text{kg}$ of air were unequivocally injured (score, 60 ± 16). In the second experiment, heparin animals had significantly less neurological impairment at 24 hours (34 ± 14) than saline controls (52 ± 8) ($P=.0013$).

- *Conclusions* When given prophylactically, heparin decreases neurological impairment caused by severe cerebral arterial air embolism.

APA FUNGSI HEPARIN ITU?

- **Heparin** Purified from beef lung, heparin is a variety of sugar moieties with anticoagulant properties. Probably the most important mechanism of action is its potentiation of antithrombin, which **decreases the activity of factors IX, X, XI, XII, and II (thrombin)**. It also has some modest antiplatelet effect from its inhibition of thrombin-mediated platelet aggregation. While its anticoagulant effects occur immediately upon administration, after an infusion is discontinued the half-life is approximately 1.5 hours. **The other major risk of heparin is an induced thrombocytopenia (HIT)**. HIT occurs approximately 4-7 days after an infusion has started and is defined by a drop in platelet count of 50% or more; the only treatment is stopping the heparin.
- **After an episode of HIT, both unfractionated and low-molecular-weight heparin have a low risk of causing Heparin induced thrombocytopenia (HIT) again**
- The IST randomized 20,000 patients to low-dose aspirin and or low-dose heparin in a 2x2 factorial design (i.e. patients were independently randomized to receive neither, one, or both of the two treatments) (20). **Although, overall, heparin in a dose of 5000 U SQ Q12 h or 12,500 U SQ Q12 h did not change outcome overall, 5000 U SQ Q12h led to significant (if modest) benefit. The group that received 5000 U SQ Q12 h and aspirin 3325 mg QD did best.**

APAKAH EBM ITU?

- Evidence-based Medicine (EBM) adalah pengintegrasian antara
- (1) bukti ilmiah berupa hasil penelitian yang terbaik dengan
- (2) kemampuan klinis dokter serta
- (3) preferensi pasien dalam proses pengambilan keputusan pelayanan kedokteran
- (4) Geddes (2000) menyatakan bahwa EBM adalah strategi yang dibuat berdasarkan pengembangan teknologi informasi dan epidemiologi klinik dan ditujukan untuk dapat menjaga dan mempertahankan ketrampilan pelayanan medik dokter dengan basis bukti medis yang terbaik

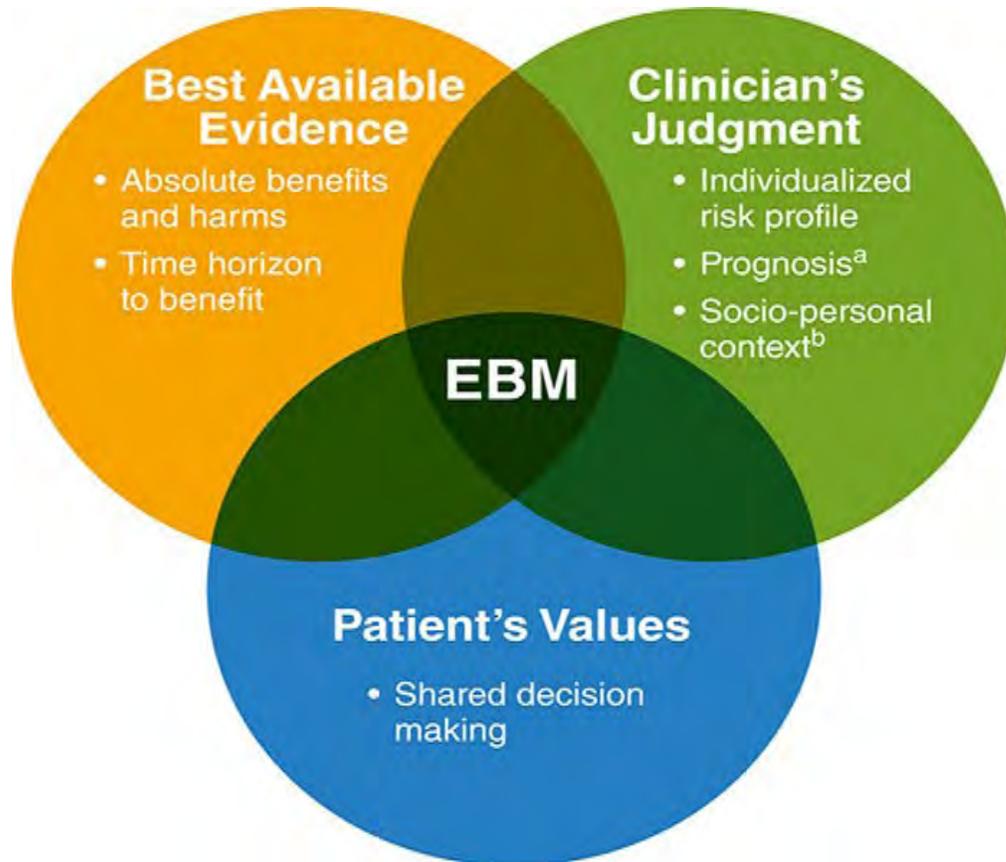
APAKAH EBM ITU?

- *Evidence based medicine (EBM)* adalah proses yang digunakan secara sistematis untuk melakukan evaluasi, menemukan, menelaah/ me-review, dan memanfaatkan hasil-hasil studi sebagai dasar dari pengambilan keputusan klinik.
- Menurut Sackett et al. (2000), Evidence-based medicine (EBM) adalah suatu pendekatan medik yang didasarkan **pada bukti-bukti ilmiah terkini** untuk kepentingan pelayanan kesehatan penderita. Dengan demikian, dalam praktek, **EBM memadukan antara kemampuan dan pengalaman klinik dengan bukti-bukti ilmiah terkini yang paling dapat dipercaya.**

KEPUTUSAN KLINIK

Salah satu syarat utama untuk memfasilitasi pengambilan keputusan klinik yang evidence-based adalah dengan menyediakan bukti-bukti ilmiah yang relevan dengan masalah klinik yang dihadapi, serta **diutamakan** yang berupa hasil meta-analisis, review sistematis, dan randomized double blind controlled clinical trial (RCT).

EBM CONTENTS:



1. *Best research evidence.*

Di sini mengandung arti bahwa bukti-bukti ilmiah tersebut harus berasal dari studi-studi yang dilakukan dengan metodologi yang sangat terpercaya (khususnya randomized double blind controlled clinical trial), yang dilakukan secara benar. Studi yang dimaksud juga harus menggunakan variabel-variabel penelitian yang dapat diukur dan dinilai secara obyektif (misalnya tekanan [darah](#), kadar Hb, dan kadar kolesterol), di samping memanfaatkan metode-metode pengukuran yang dapat menghindari resiko “bias” dari penulis atau peneliti.

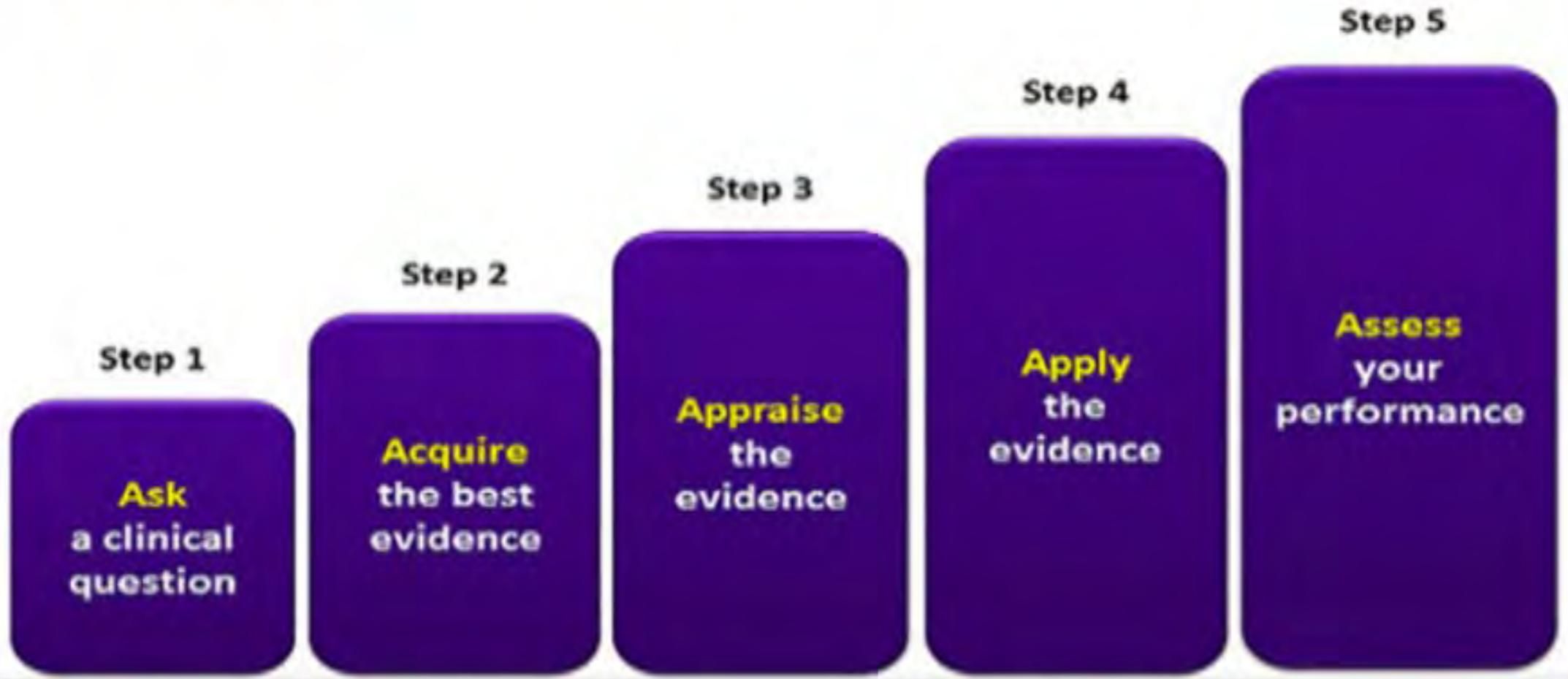
2. *Clinical expertise.*

Untuk menjabarkan EBM diperlukan suatu keterampilan klinik (clinical skills) yang memadai. Di sini termasuk keterampilan untuk secara cepat mengidentifikasi kondisi pasien dan menentukan diagnosis secara cepat dan tepat, termasuk mengidentifikasi faktor-faktor resiko yang menyertai serta memperkirakan kemungkinan manfaat dan resiko ([risk](#) and benefit) dari bentuk intervensi yang akan diberikan. Keterampilan klinik ini hendaknya juga disertai dengan pengenalan secara baik terhadap nilai-nilai yang dianut oleh pasien serta harapan- [harapan](#) yang tersirat dari pasien.

3. *Patient values.*

Setiap pasien, dari manapun berasal, dari suku atau [agama](#) apapun, tentu mempunyai nilai-nilai yang unik tentang status [kesehatan](#) dan penyakitnya. Pasien juga tentu mempunyai harapan-harapan atas upaya penanganan dan pengobatan yang diterimanya. Hal ini harus dipahami benar oleh seorang klinisi atau praktisi medik, agar setiap upaya [pelayanan](#) kesehatan yang dilakukan, selain dapat diterima dan didasarkan pada bukti-bukti ilmiah, juga mempertimbangkan nilai-nilai subyektif yang dimiliki oleh pasien.

The 5 Steps of Evidence-Based Medicine



LEVELS OF EVIDENCE

Derajat	Jenis <i>Evidence</i>
Ia	<i>Evidence</i> merupakan hasil meta-analisis atau sistematik review dari berbagai uji klinik acak dengan kontrol/kelola (<i>randomized controlled trials</i>)
Ib	<i>Evidence</i> berasal dari minimal satu uji klinik acak dengan kontrol/kelola (<i>randomized controlled trial</i>)
IIa	<i>Evidence</i> berasal dari paling sedikit satu uji klinik dengan pembandingan, tetapi tanpa randomisasi
IIb	<i>Evidence</i> berasal dari paling sedikit satu hasil penelitian dengan rancangan quasi-experimental
III	<i>Evidence</i> berasal dari hasil penelitian deskriptif non eksperimental seperti misalnya studi komparatif, studi korelasi, dan studi kasus
IV	<i>Evidence</i> berasal dari laporan komite ahli atau opini ataupun pengalaman klinik dari ahli yang diakui



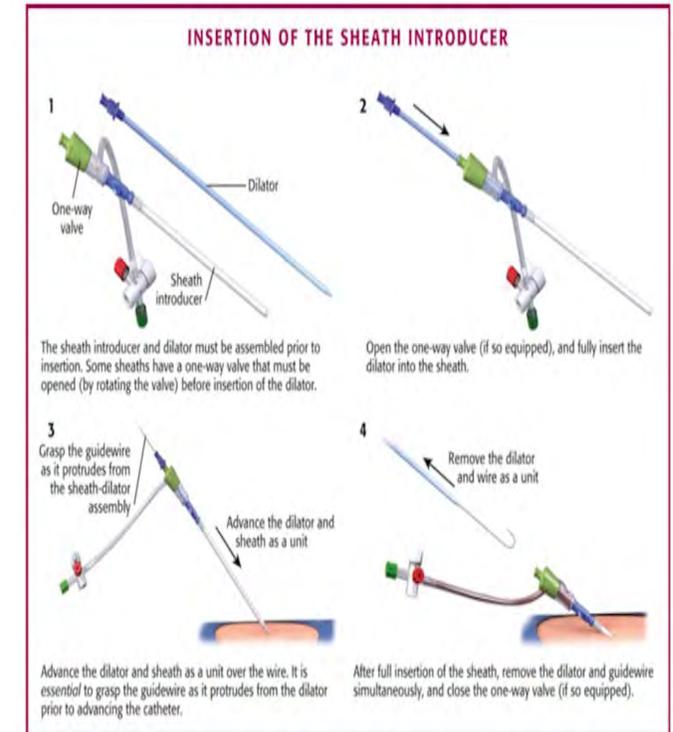
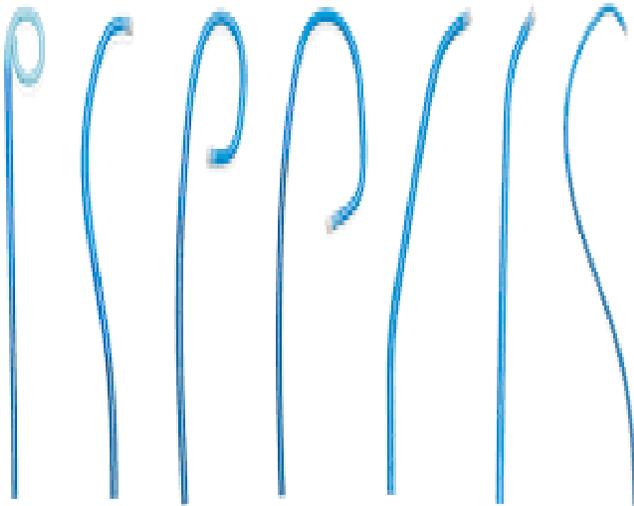
Innova IGS
540 dengan
detector
40x40 Inch

PERSIAPAN DAN TINDAKAN IAHF PADA PASIEN

- KU baik
- Laboratorium lengkap baik
- Pemeriksaan radiologi lengkap, MSCT, MRI, MRA, MRV
- Informed consent
- Sign in
- Doa kepada Tuhan YME untuk diberikan kemudahan, kelancaran, keselamatan serta kesembuhan bagi pasien dan keselamatan tim.
- Tindakan dimulai sampai tindakan selesai.
- KU pasien pasca tindakan baik, pasien kembali ke bangsal

PEMERIKSAAN DSA: Macam Sheat, dan Kateter

Multiple Tips Shapes





- **TIM RADIOLOGI INTERVENSI RSUP Dr. SARDJITO**
- **POST IAHF PASIEN MERASA LEBIH BAIK DAN LEBIH MERASA SEGAR**

STUDI KASUS:

INTRA ARTERIAL HEPARIN FLUSHING FOR CEREBRAL VENOUS THROMBOSIS IN CHRONIC ISCHEMIC STROKE: A CASE REPORT

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ABSTRACT

BACKGROUND: Cerebral venous thrombosis (CVT) is responsible for 1%–2% of all strokes, with incidence of 3–4 cases per million people, mortality rate of 8% and residual disability of 10%. Diagnosis of CVT is usually delayed often be overlooked because of the wide spectrum of clinical symptoms. Treatment of CVT with heparin is safe and likely to improve outcome.

CASE REPORTS: A 56-year-old man with complaint of right hemiparesis since stroke onset at 10 months ago, which power of right upper and lower limbs was 3/5. He has uncontrolled hypertension and hypercholesterolemia. Head Computed Tomography (CT) at 10 months ago showed a hypodense focus in left temporoparietal lobe. Brain Magnetic Resonance Imaging (MRI) showed old infarct in left temporoparietal lobe. Magnetic Resonance Venography (MRV) and Digital Substraction Angiography (DSA) revealed thrombosis of the left transverse and sigmoid sinus. Patient received Intra Arterial Heparin Flushing (IAHF) treatment using 5000 IU Heparin diluted with 500 cc Normal Saline then flushed intraarterial in both right and left carotid arteries and vertebral arteries. Recanalization of the left transverse and sigmoid sinus as well as an increase muscle strength of upper and lower limbs right into 4/5 achieved after IAHF treatment.

DISCUSSION: CVT in ischemic stroke may be related to increased intracranial pressure attributable to impaired venous drainage or related to focal brain injury from venous ischemia/infarction. MRI and MRV are noninvasive technique for diagnosis and evaluation of CVT, although conventional angiography still considered the gold standard. IAHF increase cerebral blood flow in chronic ischemic stroke patient. Heparin has a role as an anticoagulant, fibrinolytic and thrombolytic.

CONCLUSION: This case demonstrated that IAHF treatment can be considered as an effective treatment option for chronic ischemic stroke patient with CVT. Keywords: Intra Arterial Heparin Flushing, Cerebral Venous Thrombosis, Chronic Ischemic Stroke

[Cathet Cardiovasc Diagn.](#) 1981;7(3):235-46.

Effect of intraarterial injection of heparin on the complications of percutaneous arterial catheterization in infants and children.

[Rao PS](#), [Thapar MK](#), [Rogers JH Jr](#), [Strong WB](#), [Lutcher CL](#), [Nesbit RR Jr](#), [Wray CH](#).

- **Abstract**

- Thrombotic complications of percutaneous arterial catheterization still remain a significant and serious problem in infants and children. Systemic heparinization has been recommended for prevention of these complications. **The purpose of this study was to evaluate the effect of intraarterial injection of heparin in reducing thrombotic complications following percutaneous femoral artery catheterization.** One hundred sixteen consecutive patients (ages four months to 20 years) studied by the Desilets-Hoffman modification of Seldinger's technique of femoral artery catheterization were randomly allocated to the control or heparin groups using a double-blind technique. At the completion of the catheterization, 0.1 mg/kg of placebo or heparin (1,000 units/ml) was injected into the common iliac artery prior to removal of the catheter and sheath. Segmental plethysmography was performed in both lower extremities prior to and after the catheterization, and a plethysmography index (PI) was calculated. The age and sex distribution, diagnoses, number, type, and site of previous catheterization, hemoglobin, platelet count, the amount of flush solution and the heparin contained therein, size of the catheter and sheath used, number of arterial punctures, and the length of the time in the artery were similar in the two groups (P greater than 0.1). Thrombin time and activated partial thromboplastin time were measured prior to the use of flush solution and prior to angiography, and these remained essentially unchanged in the two groups. The PI in the control group (97.5 +/- 320) was not significantly different (P greater than 0.1) from that of the heparin group (97.7 +/- 32). Similarly, the six to 24 month of postcatheterization plethysmography data show no differences (P greater than 0.1). The number of patients with reduced ipsilateral posterior tibial and dorsalis pedis pulses was also similar (P greater than 0.1). None of the patients in either group required thrombectomy. The low incidence of arterial complications in our patients when compared with other studies may be related in part to the use of a sheath, which is not called for in original Seldinger technique. **The data suggest that full-dose heparin administration does not significantly alter arterial complications following percutaneous femoral artery catheterization, especially in children over five years of age.**

- PMID: 7026038 [Indexed for MEDLINE]

- [Brain Edema XVI](#) pp 127-130| [Cite as](#)

Effects of Low-Dose Unfractionated Heparin Pretreatment on Early Brain Injury after Subarachnoid Hemorrhage in Mice

[Authors:](#) Orhan Altay, Hidenori Suzuki, Yu Hasegawa, Mehmet Sorar, Han Chen, Jiping Tang, John H. Zhang

[Email author:](#) Part of the [Acta Neurochirurgica Supplement](#) book serie, (NEUROCHIRURGICA, volume 121)

Abstract:

Heparin is a pleiotropic drug that antagonizes many pathophysiological mechanisms. In this study, we evaluated whether **heparin prevents early brain injury (EBI) after subarachnoid hemorrhage (SAH) in mice**. SAH was induced by endovascular perforation in mice randomly assigned to sham-operated ($n = 8$), SAH + vehicle ($n = 12$), SAH + 10 U heparin pretreatment ($n = 11$), and SAH + 30 U heparin pretreatment ($n = 14$) groups. At 24 h post-SAH, severity of SAH, neurological scores, and brain water content were evaluated. **Low-dose heparin pretreatment improved neurobehavioral function, and decreased brain edema in the ipsilateral cerebral hemisphere to the perforation side.** **High-dose heparin had a tendency for increased SAH, which obscured the neuroprotective effects by heparin.** Low-dose heparin pretreatment may decrease the development of post-SAH EBI.

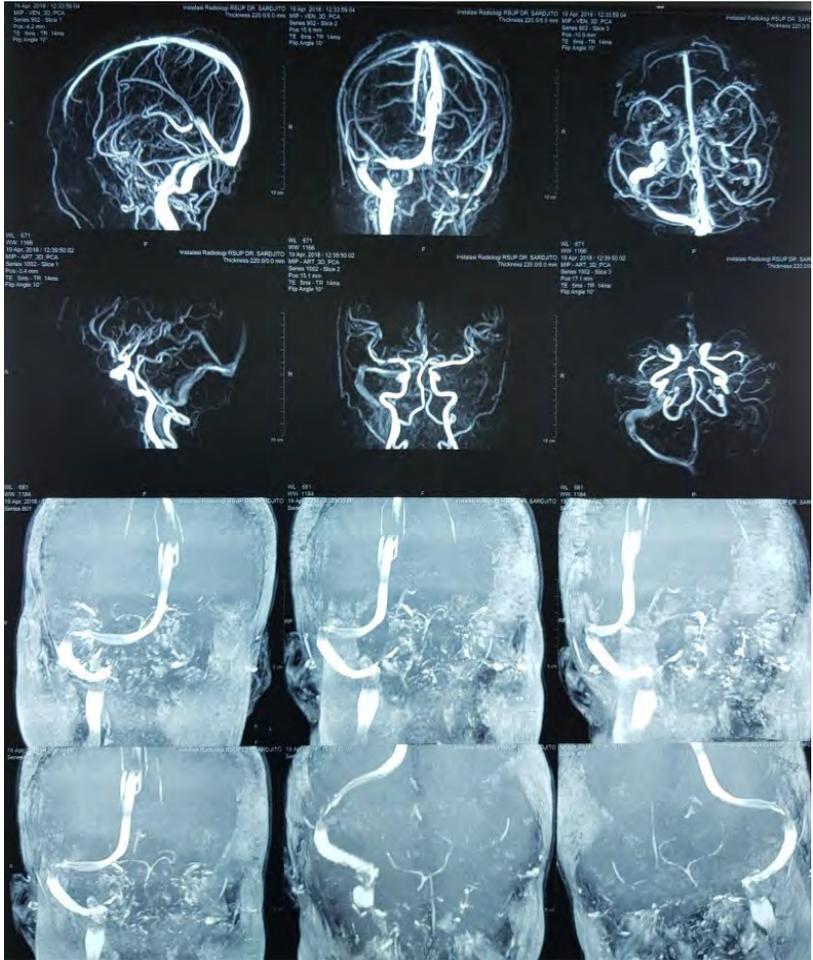
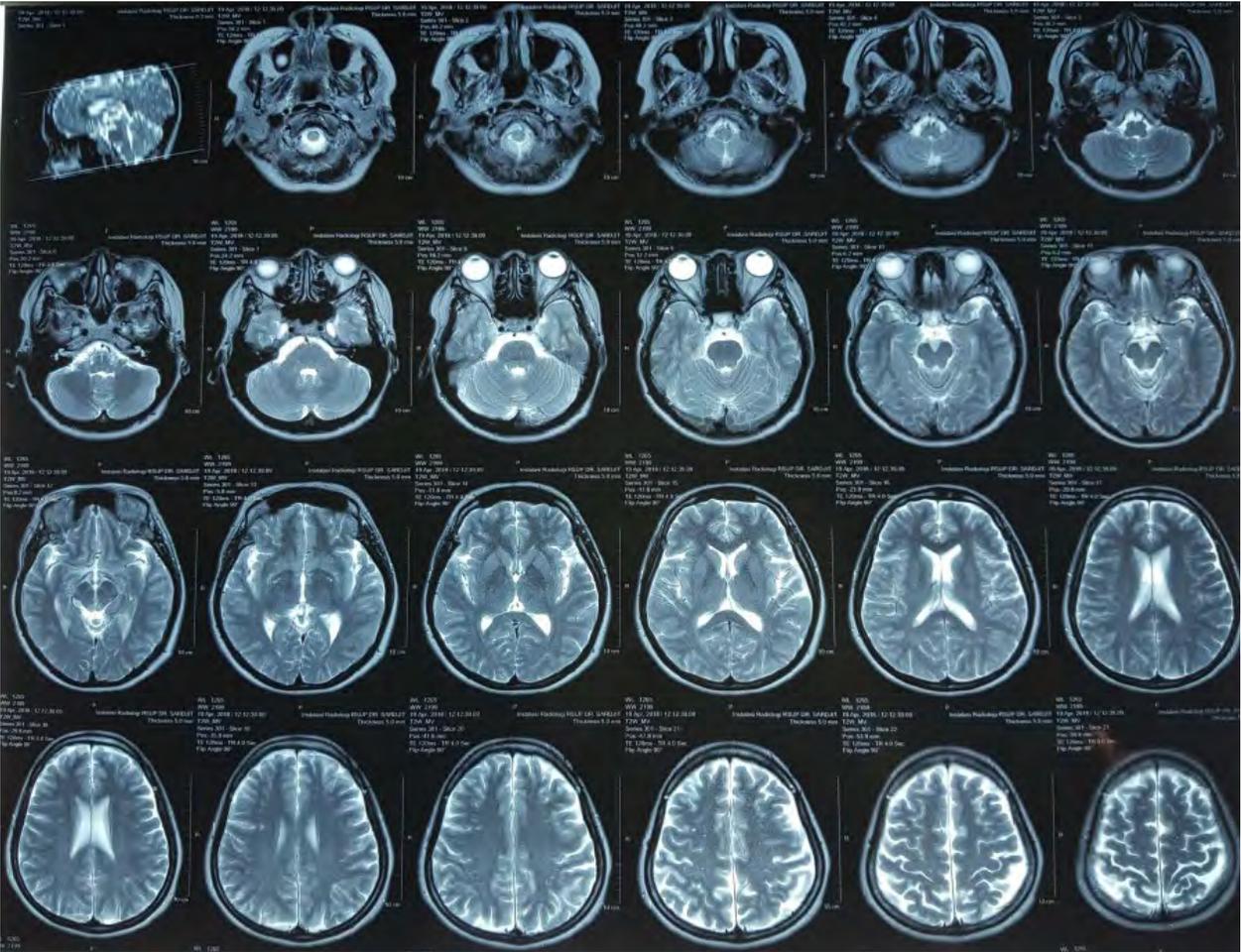
Keywords: Brain edema-Early brain injury-Heparin-Subarachnoid hemorrhage

SINUS TRANSVERSUS SINISTRA TROMBOSIS TINDAKAN IAHF DAN POST TINDAKAN IAHF

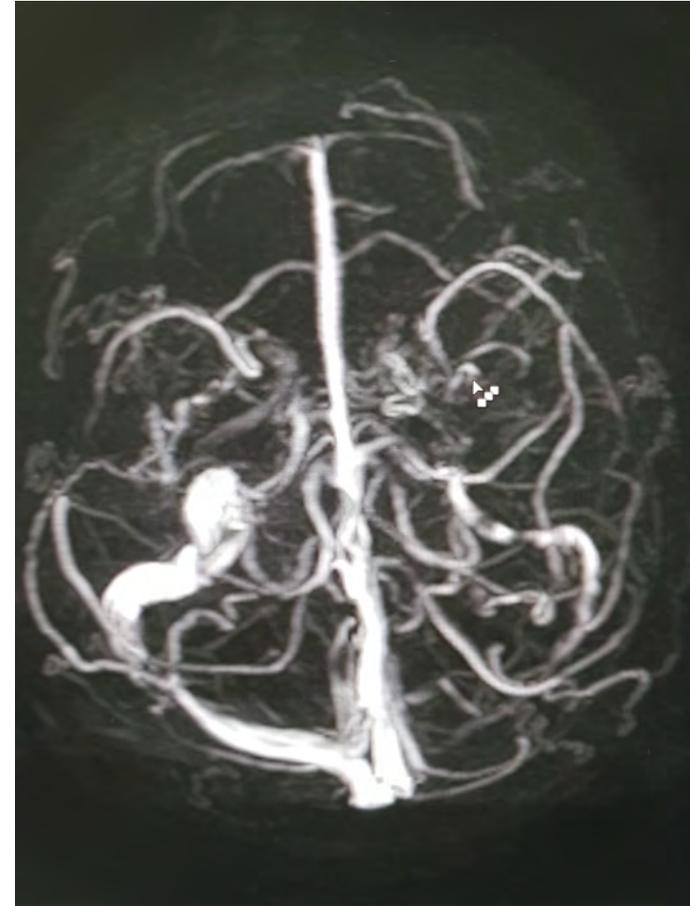
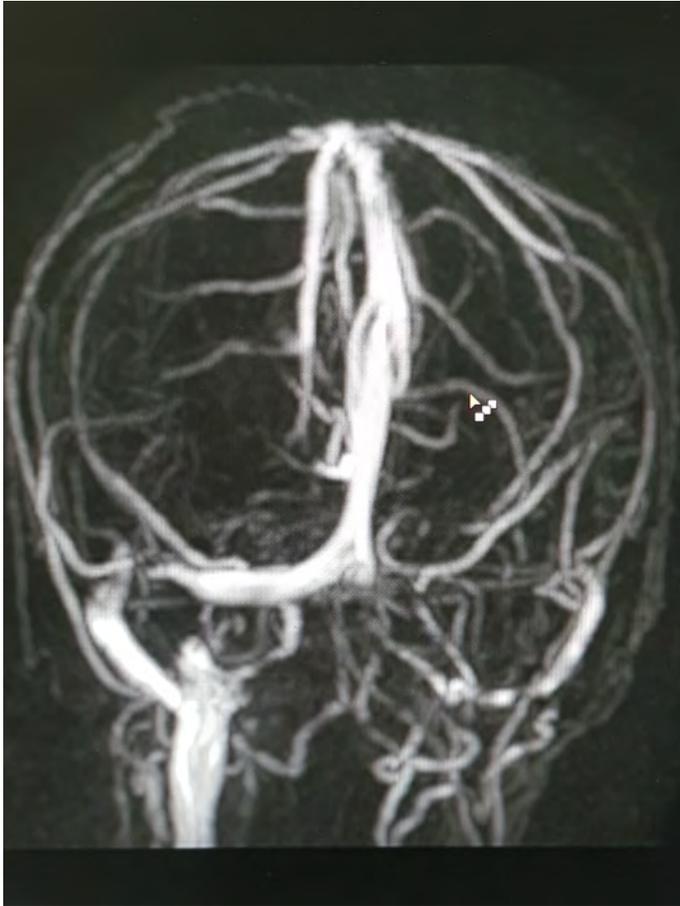


Seorang Wanita 42th dengan keluhan sering pusing, vertigo dan kepala nut-nut

MRI, MRA DAN MRV PADA SINUS TRANSVERSUS SINISTRA TROMBOSIS



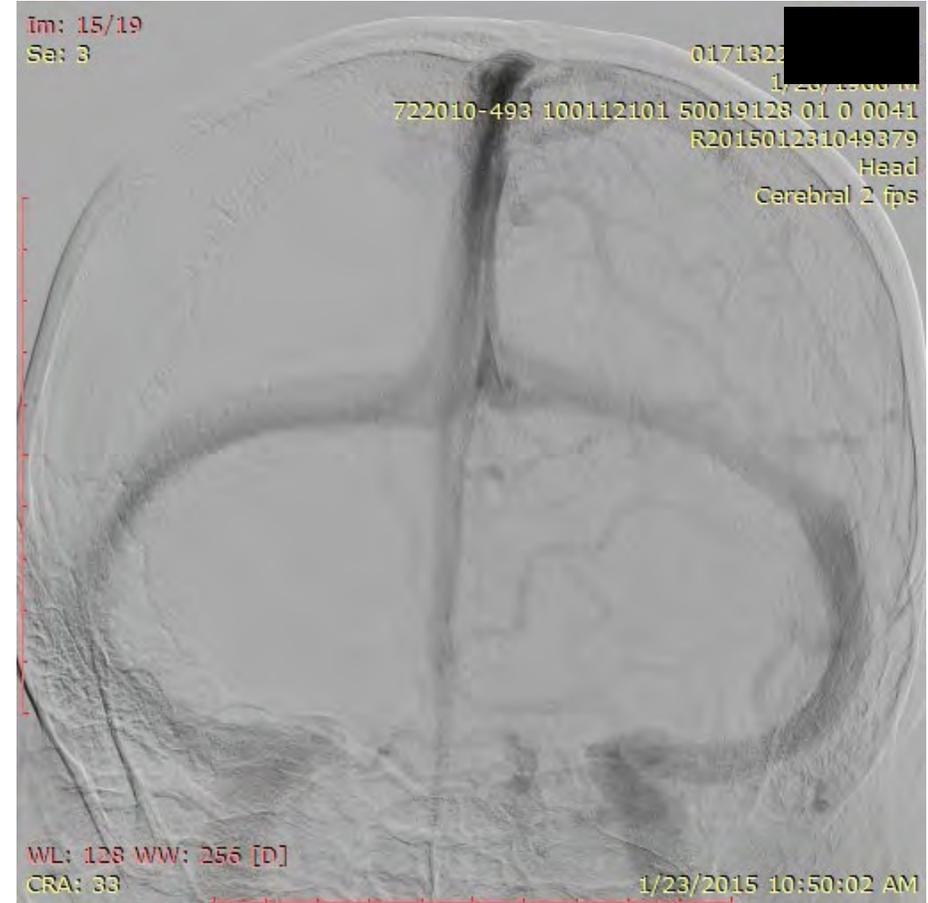
MRA Pada Trombosis Sinus Transversus Kiri



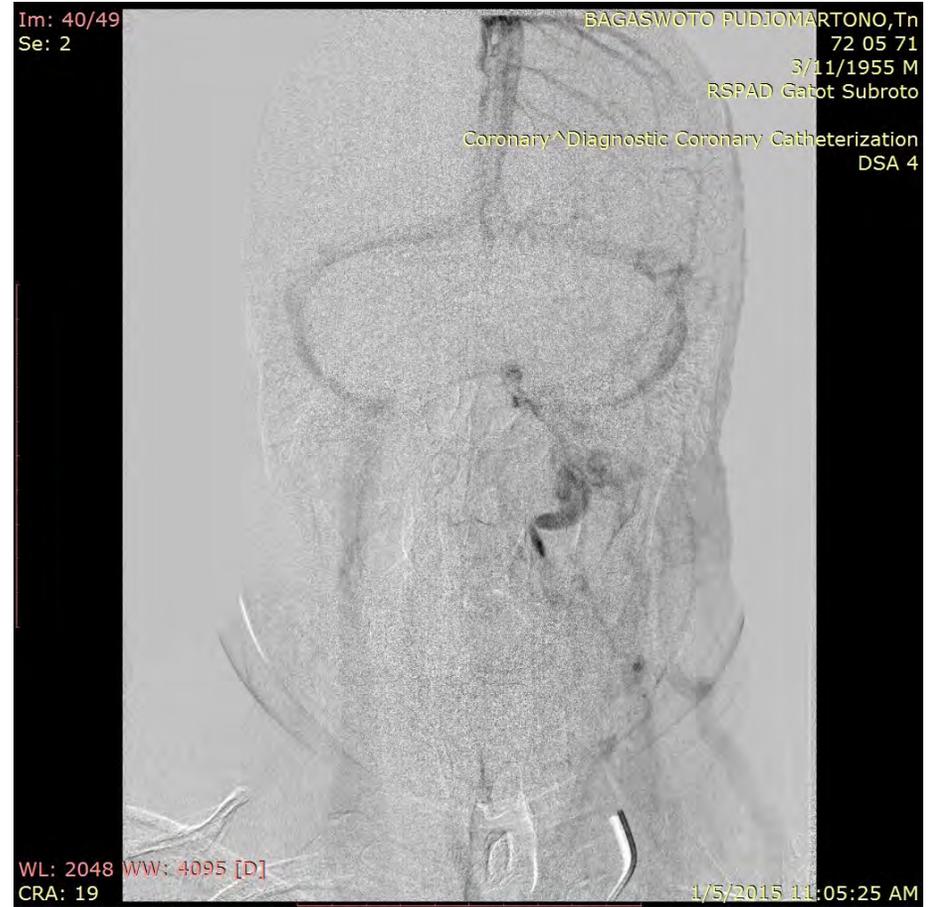
Trombosis Sinus Transversus Kiri: Pre dan Post IAHF



5/7/2022 Before IAHF



After IAHF



IAHF pada Trombosis Sinus Tranversus kiri Post Stroke NH

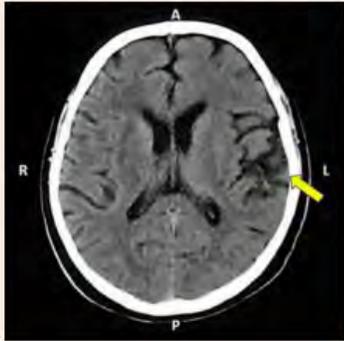


Figure 1. CT Scan at 10 months ago showed infarct of left temporoparietal lobe

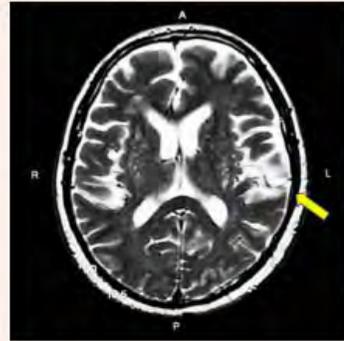


Figure 2. T2-weighted MR image showed old infarct of left temporoparietal lobe

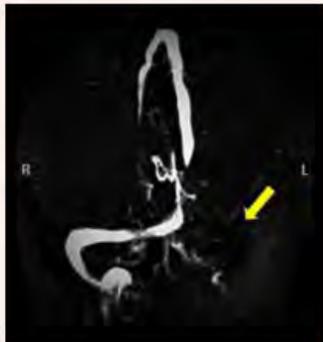


Figure 3. TOF MRV showed loss of flow in the left transverse and sigmoid sinus



Figure 4. DSA showed non filling in left transverse and sigmoid sinus



Figure 5. DSA after IAHF showed filling in left transverse and sigmoid sinus



Figure 6. TOF MRV evaluation showed presence of flow in left transverse and sigmoid sinus

Saposnik, Barinagarrementeria, Brown, et al. Stroke. 2011;42:1158-92.

Heparin Oligosaccharides that Pass the Blood—Brain Barrier Inhibit α -Amyloid Precursor Protein Secretion and Heparin Binding to β -Amyloid Peptide

*tBéatrice Leveugle, *wanhong Ding, ~Fenart Laurence, tMarie-Pierre Dehouck, *Andrew Scanameo, tRoméo Cecchelli, and *Howard Fillit *

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Pasteur, Lille, France

Abstract:

We have previously demonstrated that fulllength **heparin** stimulates the synthesis and secretion of \sim -amyloidprecursor protein (APP) through an amyloido-genic pathway in neuroblastoma cells. **In the present study, heparin was chemically depolymerized, and the effect of low-molecular-weight (LMW) heparin on APP secretion was investigated.** In contrast to full-length hep- ar, **LMW heparin had no significant effect on APP secre- tion.** However, LMW heparin fragments, especially hepa- nfl disaccharides, were able to inhibit efficiently the stimulatory effect of heparin on APP secretion. LMW heparin derivatives also inhibit the binding of heparin to the /3- amyloid peptide (1—28). Using an in vitro model, we further demonstrated **the passage of LMW heparin derivatives through the blood—brain barrier.** **This study suggests that LMW heparin derivatives or analogues may be effective as therapeutic agents to prevent or slow the process of amyloidogenesis in Alzheimer's disease.**

Key Words: Heparan sulfate—Alzheimer's disease—Proteoglycans—Glycosaminoglycans—Therapy. J. Neurochem. 70, 736—744 (1998).

Heparin Reduces Neuroinflammation and Transsynaptic Neuronal Apoptosis in a Model of Subarachnoid Hemorrhage

J. Marc Simard & Cigdem Tosun & Svetlana Ivanova & David B. Kurland & Caron Hong & Leanne Radecki & Carter Gisriel & Rupal Mehta & David Schreiber & Volodymyr Gerzanich

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Abstract

Subarachnoid hemorrhage (SAH) can lead to disabling motor, cognitive, and neuropsychological abnormalities. Part of the secondary injury to cerebral tissues associated with SAH is attributable to the neuroinflammatory response induced by blood. **Heparin is a pleiotropic compound that reduces inflammatory responses in conditions outside the central nervous system.** Using a model of SAH devoid of global insult, we evaluated the effect of delayed intravenous (IV) infusion of heparin, at a dose that does not produce therapeutic anticoagulation, on neuroinflammation, myelin preservation, and apoptosis. **Adult male rats underwent bilateral stereotactic injections of autologous blood (50 µL) into the subarachnoid space of the entorhinal cortex.** The rats were implanted with mini-osmotic pumps that delivered either vehicle or unfractionated heparin (10 U/kg/h IV) beginning 12 h after SAH. No mechanical or hemorrhagic injury was observed in the hippocampus. In vehicle controls assessed at 48 h, SAH was associated with robust neuroinflammation in the adjacent cortex [neutrophils, activated phagocytic microglia, nuclear factor-kappa B, tumor necrosis factor-alpha, and interleukin-1beta] and neurodegeneration (Fluoro-Jade C staining and loss of NeuN). In the hippocampus, a muted neuroinflammatory response was indicated by Iba1-positive, ED1-negative microglia exhibiting an activated morphology. The perforant pathway showed FluoroJade C staining and demyelination, and granule cells of the dentate gyrus had pyknotic nuclei, labeled with Fluoro-Jade C and showed upregulation of cleaved caspase-3, consistent with transsynaptic apoptosis. **Administration of heparin significantly reduced neuroinflammation, demyelination, and transsynaptic apoptosis. We conclude that delayed IV infusion of low-dose unfractionated heparin may attenuate adverse neuroinflammatory effects of SAH.**

Keywords: Subarachnoid hemorrhage . Neuroinflammation . Microglia . Heparin . Transsynaptic apoptosis . Rat

DISKUSI

- Evidence based tidak harus dengan level evidence yang tinggi, namun bisa dengan menggunakan level evidence yang dibawahnya.
- Tidak harus menggunakan penelitian dengan Meta Analysis, RCT, maupun Cohort, namun bisa juga dengan menggunakan penelitian observasional, analitik, case series atau kasus seri maupun case report atau laporan kasus pengalaman, bahkan pendapat ahli itupun bisa digunakan, meskipun level evidence nya tidak tinggi namun masih dapat diakui.
- Penelitian-penelitian dengan level evidence yang rendah itu tidak harus ditolak, melainkan harus diterima juga, karena untuk dengan level evidence yang tinggi itupun banyak kesulitan dan mungkin juga terjadinya bias, diantaranya biaya yang relative tinggi.
- Semua prosedur untuk penelitian harus di selesaikan dulu sebelum penelitian dimulai
- Dalam melakukan pelayanan kepada pasien tidak boleh atau tidak elok untuk sambil melakukan penelitian terutama RCT, karena itu dapat sangat merugikan pasien

SIMPULAN

- Pengalaman dengan **case report** maupun dengan **case series** adalah dapat dimasukan dan evidence
- Untuk **evidence tidak harus dengan melakukan penelitian RCT** maupun dengan **Metaanalysis** research, meskipun nilai evidens nya tinggi.
- RCT tidak elok untuk dilakukan pada koridor pelayanan, melainkan dalam koridor penelitian yang harus lolos *ethical clearance*

MASUKAN

- *Mudah-mudahan ini dapat memberikan masukan untuk kebijaksanaan dalam KEMBALI menuju rekonsiliasi, damai, dan sejahtera semuanya bagi para dokter yang berseteru, terpecah belah dan para dokter semuanya. Jika hal yang demikian dibiarkan berlarut terus akan dapat mengakibatkan NAMA DOKTER INDONESIA yang tidak elok dimata dunia.*
- *Marilah kita saling dewasa, bersatu, saling mengayomi, bantu-membantu untuk membangun nusa, bangsa dan negara Indonesia tercinta ini menuju Indonesia yang maju, sejahtera, adil dan makmur bagi seluruh rakyat Indonesia.*
- *Amin ya Robbal Alamin.....*

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TERIMA KASIH

Semoga bermanfaat, damai dan sejahtera