Pengelolaan Terkini Stroke Iskemik Akut di Rumah Sakit

by Tri Wahyuliati

Submission date: 14-Dec-2017 02:14PM (UTC+0700)
Submission ID: 895898556
File name: B.6.pdf (325.34K)
Word count: 2028
Character count: 11888

Pengelolaan Terkini Stroke Iskemik Akut di Rumah Sakit

(Update on Management of Acute Ischemic Stroke in Hospital)

Tri Wahyuliati

ABSTRAK

Sampai saat ini, stroke masih merupakan penyebab kematian dan kecacatan yang tinggi di berbagai negara. Kemajuan dalam pengobatan stroke menyebabkan munculnya "primary stroke center," atau "comprehensive stroke centers", atau yang di Indonesia lebih dikenal sebagai "unit stroke", yaitu suatu bagian dari rumah sakit di mana sekelompok profesional medis yang mengkhususkan diri dibidang stroke, bekerja bersama untuk mendiagnosa, mengobati, dan menyediakan rehabilitasi awal untuk pasien stroke. Konsep ini lahir setelah para ahli di lapangan menyadari bahwa kurang dari 5 % dari pasien stroke akut menerima t-PA, obat yang jika diberikan dalam waktu tiga jam dari onset stroke dapat melarutkan penyebab stroke iskemik, namun jika diberikan kemudian dapat menyebabkan pendarahan serius di otak.

Banyak hambatan yang menyebabkan pasien gagal menerima perawatan dengan t-PA ini, namun yang umum terjadi adalah diagnosis yang tertunda oleh berbagai sebab. Guna mengatasi hal ini, maka berbagai senter menyusun suatu pedoman yang komprehensif untuk pengelolaan stroke akut di rumah sakit. Secara umum pedoman tersebut meliputi alat uji diagnosis utama stroke, tes laboratorium yang diperlukan, protokol pengobatan, tim unit stroke, komitmen bersama organisasi medis dalam menetapkan perawatan stroke akut di rumah sakit, evaluasi hasil pengobatan stroke jangka pendek dan jangka panjang, akses ke layanan ahli bedah saraf, staf darurat yang terlatih secara formal, dan sebagainya, termasuk personil ambulans yang telah menerima pelatihan stroke yang formal.

Berbagai sarana yang tersedia dan siap pakai menjadi alasan penting mengapa unit stroke menjadi tempat terbaik untuk mendapatkan perawatan stroke akut. Pada intinya, penyediaan perawatan stroke metodis dan terorganisir untuk mengangkut, menilai, mendiagnosa, dan mengobati setiap pasien stroke dalam waktu tiga jam dari timbulnya gejala. Guna mencapai hal tersebut, perlu adanya protokol yang teruji untuk memastikan tercapainya pengobatan stroke dalam waktu tiga jam pertama. Waktu tersebut meliputi penggunaan waktu untuk transportasi pasien ke rumah sakit, evaluasi dokter ahli saraf, pelayanan penunjang diagnosis utama, laboratorium, pengobatan dan perawatan yang tepat, evaluasi terapi jangka pendek dan komplikasi.

Berbagai hal yang dilakukan bagi pasien stroke yang di dirawat di unit stroke akan lebih memungkinkan untuk pemulihan. Hal itu menjadi salah satu alasan yang paling penting mengapa unit stroke adalah tempat utama untuk pengobatan stroke. Rumah sakit yang memiliki unit stroke memberikan hasil yang lebih baik dalam pengobatan stroke. Sehingga pada akhirnya, pengelolaan stroke iskemik akut di rumah sakit tidak akan lepas dari pembicaraan tentang segala hal yang dilakukan dalam "unit stroke" itu sendiri.

Kata kunci : *stroke – acute – ischemic – hospital – management*

Pendahuluan

Sroke merupakan suatu kondisi emergensi yang ditandaai dengan adanya gangguan fungsi otak yaang seringkali berkembang secara cepat sebagai akibat dari gangguan suplai daarah ke otak sehingga mengakibatkan kerusakan saraf yang menetap, komplikasi berat atau berakhir pada kematian. Managemen stroke ditentukan pada jenisnya yaitu stroke iskemik (thromboembolic) atau stroke hemoragik.

Berbagai hambatan yang menyebabkan pasien stroke gagal menerima perawatan pada masa "*window periode*" atau "*golden periode*" telah ditemui, yang mengakibatkan diagnosis yang tertunda oleh berbagai sebab. Guna mengatasi hal ini, maka berbagai senter menyusun suatu pedoman terkini yang komprehensif untuk pengelolaan stroke akut di rumah sakit yaitu di "unit stroke".

Berbagai rekomendasi untuk mewujudkan suatu unit stroke telah disusun dalam berbagai protokol guna menjamin managemen stroke akut di rumah sakit dapat dilakukan dengan baik, meskipun pada kenyataanya hal itu sering kali berbenturan pula dengan kondisi ruang emergensi dan unit gawat darurat diberbagai rumah sakit yang sangat sibuk. Secara umum pedoman tersebut meliputi alat uji diagnosis utama stroke, tes laboratorium yang diperlukan, protokol pengobatan, tim unit stroke, komitmen bersama organisasi medis dalam menetapkan perawatan stroke akut di rumah sakit, evaluasi hasil pengobatan stroke jangka pendek dan jangka panjang, akses ke layanan ahli bedah saraf, staf darurat yang terlatih secara formal, dan sebagainya, termasuk personil ambulans yang telah menerima pelatihan stroke yang formal.

Alat Uji Diagnostik Pada Unit Stroke

Pelalatan untuk uji diagnostik pada suatu unit stroke meliputi :

- A CT scan atau MRI yang selalu siap selama 24 jam setiap hari
- Tersedia pelayanan bedah saraf pada kondisi yang memerlukan operasi otak
- Uji laboratorium yang tersedia lengkap dan siap selama 24 jam setiap haari
- Protokol terapi t-PA yang selalu tersedia diruang unit gaawat darurat

- Suatu tim medis yang tergabung dalam tim pelayanan stroke akut
- Standar operasional prosedur untuk (SOP) stroke akut harus tersedia yaitu "clinical pathways"
- Minimal tersedia 4 bed
- Pelayanan non-invasive pada cardiac arrhytmia dan cardiac monitoring
- Alat untuk pemeriksaan tekanan aliraan daarah
- Pemeriksaan Oxygen saturasi

Sumber Daya Manusia

Suatu tenaga medis yang tergabung daalam unit stroke meliputi :

- A full-time neurologist
- Perawat yang telatih dengan perbandingan 2 perawat / 4 tempat tidur
- Neuro-radiologist untuk penilaian CT scan dan MRI
- A Neuro-surgeon for surgery indication
- A consultant stroke rehabilitation physician (physiotherapist, occupational therapist, speech therapist)
- A Cardiologist
- A Formal stroke training - ambulance personnel
- An ancillary staff member
- An endocrinologist
- A Pulmonologist
- The social assistant – social worker
- Multidisciplinary staff for a weekly meeting
- Training sessions and discussion

- Protokol Stroke iskemik act dan protocol data isian atau and check list yang meliputi :
    - A rapid ambulance protocol for acute stroke
    - Acute stroke pathway
    - Inpatient clinical protocol
    - Stroke triage
    - Stroke admission orders
    - Emergency Room Stroke Orders
    - Laboratory investigation
    - Monitoring and therapy application
    - Ischemic stroke blood pressure protocol
    - Intra-cerebral hemorrhage blood pressure protocol
    - Neurological rehabilitation programme
    - Family involvement
    - The nursing care plan
    - Diabetic patient stroke protocol
    - Disphagia patient stroke protocol
    - Catheterisation protocol

Asuhan Keperawatan

- Assistance in the activities daily living
- Hygiene, Mobilisation, Mouth care, Skin necrosis prevention

- Control of liquid balance and feeding
- Monitoring of vital parameters
    - Oxygen arterial saturation
    - Breathing
    - Aerosol and aspiration are mandatory
    - Blood pressure and ECG changes should be continously follow up
- Glycamia (4x / day during 48 hours – patient Diabetic / glycaemia) (dr. Iqbal)
- Temperature (twice daily - to check the infection) (Ibu Ratna)
- Pain control (dr. Joko)
- Supervision of the catheter site (Ibu Ratna)
- Education to autonomy and emotional self-control are necessary (?)
- Swallowing function (Ibu Ratna)
- Bladder function (Ibu Ratna)
- Changes in neurological status (dr. Yuli + Ibu Ratna)
    - Stroke scales (Orgogoza stroke scale)
    - Modified Rankin scale
- Changes in levels of consciousness (dr. Yuli + Ibu Ratna)
    - The GCS
    - Reaction Level Scale (RLS)
- Assistance in the activities daily living (Ibu Ratna)

- Hygiene, Mobilisation, Mouth care, Skin necrosis prevention (Ibu Ratna)
- Control of liquid balance and feeding (Ibu Ratna)
- Monitoring of vital parameters (Ibu Ratna)
    - Oxygen arterial saturation
    - Breathing
    - Aerosol and aspiration are mandatory
    - Blood pressure and ECG changes should be continously follow up
- Glycamia (4x / day during 48 hours – patient Diabetic / glycaemia)
- Temperature (twice daily - to check the infection)
- Pain control
- Supervision of the catheter site
- Education to autonomy and emotional self-control are necessary
- Swallowing function
- Bladder function
- Changes in neurological status
    - Stroke scales (Orgogoza stroke scale)
    - Modified Rankin scale
- Changes in levels of consciousness
    - The GCS
    - Reaction Level Scale (RLS)

Fisioterapis

- Good position of the patient in bed
- Passive and active mobilization
- Speech therapy
- Cognitive impairment Mini-Mental State Examinattion (MMSE)

Rekomendasi

Perawatan stroke iskemik akut pada unit stroke telah diteliti diberbagai senter pelayanan. Data menunjukkan hasil yang bagus terhadap luaran pasien yang dirawat di unit stroke. Tabel dibawah ini menunjukkan data berbasis bukti tentang rekomendasi pelayanan stroke iskemik atau pada unit stroke.

Tabel 1. Rekomendasi pelayanan pada unit stroke berbasis bukti

Recommendations
• It is recommended that all stroke patients should be treated in a stroke unit (Class I, Level A).
• It is recommended that healthcare systems ensure that acute stroke patients have access to high technology medical and surgical stroke care when required (Class III, Level B).
• The development of clinical networks, including telemedicine, is recommended to expand access to high-technology specialist stroke care (Class II, Level B).

Penutup

References

1. Ringleb, M.G. Bousser, G. Ford, P. Bath, M. Brainin, V. Caso, Á . Cervera, A.I Chamorro, Charlotte Cordonnier, L. Csiba, A. Davalos, H. - C. Diener, J. Ferro, W. Hacke, M. Hennerici, M. Kaste, P. Langhorne, K. Lees, D. Leys, J. Lodder, H. S. Markus, J. - L. Mas, H. P. Mattle, K. Muir, B. Norrving, V. Obach, S. Paolucci, E. B. Ringelstein, P. D. Schellinger, J. Sivenius, V. Skvortsova, K. Stibrant Sunnerhagen, L. Thomassen, D. Toni, R.r von Kummer, N. Gunnar Wahlgren, M. F. Walker, J. Wardlawm 2011 - Ischaemic stroke and transient ischaemic attack – *European Handbook of Neurological Management: Volume 1, 2nd Edition* Edited by N. E. Gilhus, M. P. Barnes and M. Brainin 2011 Publishing Ltd. ISBN: 978-1-405-18533-2
2. William J. Powers, MD, FAHA, Chair; Colin P. Derdeyn, MD, FAHA, Vice Chair; José Biller, MD, FAHA; Christopher S. Coffey, PhD; Brian L. Hoh, MD, FAHA; Edward C. Jauch, MD, MS, FAHA; Karen C. Johnston, MD, MSc; S. Claiborne Johnston, MD, PhD, FAHA; Alexander A. Khalessi, MD, MS, FAHA; Chelsea S. Kidwell, MD, FAHA; James F. Meschia, MD, FAHA; Bruce Ovbiagele, MD, MSc, MAS, FAHA; Dileep R. Yavagal, MD, MBBS, 2015. AHA/AS Guidelines for the Early Management of Patients With Acute Ischemic Stroke Regarding Endovascular Treatment. A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*. 2015;46:000-000.
3. Ashish Nanda, **Niranjan N Singh, Robert E O'Conno, 2015** - Transient Ischemic Attack, Treatment and Management – *Medscape Medical News*. Updated: Dec 01, 2015
4. [Guideline] National Institute for Health and Clinical Excellence (NICE) Stroke Guidelines. Available at http://guidance.nice.org.uk/CG68/Guidance/pdf/English. Accessed: September 22, 2010.
5. Wu CM, McLaughlin K, Lorenzetti DL, Hill MD, Manns BJ, Ghali WA. Early risk of stroke after transient ischemic attack: a systematic review and meta-analysis. *Arch Intern Med*. 2007 Dec 10. 167(22):2417-22.
6. Amarenco P, Goldstein LB, Sillesen H, Benavente O, Zweifler RM, Callahan A 3rd, et al. Coronary heart disease risk in patients with stroke or transient ischemic attack and no known coronary heart disease: findings from the Stroke Prevention by Aggressive Reduction in Cholesterol Levels (SPARCL) trial. *Stroke*. 2010 41(3):426-30.
7. Chandratheva A, Lasserson DS, Geraghty OC, Rothwell PM. Population-based study of behavior immediately after transient ischemic attack and minor stroke in 1000 consecutive patients: lessons for public education. *Stroke*. 2010 Jun. 41(6):1108-14.
8. Bos MJ, van Rijn MJ, Witteman JC, Hofman A, Koudstaal PJ, Breteler MM. Incidence and prognosis of transient neurological attacks. *JAMA*. 2007 Dec 26. 298(24):2877-85.
9. Giles MF, Albers GW, Amarenco P, Arsava EM, Asimos AW, Ay H, et al. Early stroke risk and ABCD2 score performance in tissue- vs time-defined TIA: A multicenter study. *Neurology*. 2011 Sep 27. 77(13):1222-8.
10. Sheehan OC, Merwick A, Kelly LA, Hannon N, Marnane M, Kyne L, et al. Diagnostic usefulness of the ABCD2 score to distinguish transient ischemic attack and minor ischemic stroke from noncerebrovascular events: the North Dublin TIA Study. *Stroke*. 2009 Nov. 40(11):3449-54.
11. Tsivgoulis G, Stamboulis E, Sharma VK, Heliopoulos I, Voumvourakis K, Teoh HL, et al. Multicenter external validation of the ABCD2 score in triaging TIA patients. *Neurology*. 2010 Apr 27. 74(17):1351-7.
12. Asimos AW, Johnson AM, Rosamond WD. Multicenter evaluation of the ABCD2 score accuracy for predicting early ischemic stroke in admitted patients with transient ischemic attack. *Ann Emerg Med*. 2010:201-210
13. Chandratheva A, Geraghty OC, Luengo-Fernandez R, Rothwell PM. ABCD2 score predicts severity rather than risk of early recurrent events after transient ischemic attack. *Stroke*. 2010 May. 41(5):851-6.
14. Stead LG, Suravaram S, Bellolio MF, Enduri S, Rabinstein A, Gilmore RM, et al. An assessment of the incremental value of the ABCD2 score in the emergency department evaluation of transient ischemic attack. *Ann Emerg Med*. 2011 Jan. 57(1):46-51.

15. Fothergill A, Christianson TJ, Brown RD Jr, Rabinstein AA. Validation and refinement of the ABCD2 score: a population-based analysis. *Stroke*. 2009 Aug. 40(8):2669-73.
16. Amarenco P, Labreuche J, Lavallée PC, Meseguer E, Cabrejo L, Slaoui T, et al. Does ABCD2 score below 4 allow more time to evaluate patients with a transient ischemic attack?. *Stroke*. 2009 Sep. 40(9):3091-5.
17. Merwick A, Albers GW, Amarenco P, Arsava EM, Ay H, Calvet D, et al. Addition of brain and carotid imaging to the ABCD² score to identify patients at early risk of stroke after transient ischaemic attack: a multicentre observational study. *Lancet Neurol*. 2010 Nov. 9(11):1060-9.
18. Wu CM, Manns BJ, Hill MD, Ghali WA, Donaldson C, Buchan AM. Rapid evaluation after high-risk TIA is associated with lower stroke risk. *Can J Neurol Sci*. 2009 Jul. 36(4):450-5.
19. [Guideline] Furie KL, Kasner SE, Adams RJ, et al. Guidelines for the prevention of stroke in patients with stroke or transient ischemic attack: a guideline for healthcare professionals from the american heart association/american stroke association. *Stroke*. 2011 Jan. 42(1):227-76.

Jose Vega M.D., Ph.D. - Primary Stroke Centers Provide Superior Care for Stroke Patients - Updated December 30, 2014.

Pengelolaan Terkini Stroke Iskemik Akut di Rumah Sakit

ORIGINALITY REPORT

28%	%	28%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Jacques L De Reuck. "Stroke Units Improving the Outcome of Patients with a Cerebrovascular Event", European Neurological Review, 2006 Publication	5%
2	Ottaviani, Maddalena, Simone Vanni, Federico Moroni, Nazerian Peiman, Maria Boddi, and Stefano Grifoni. "Urgent carotid duplex and head computed tomography versus ABCD2 score for risk stratification of patients with transient ischemic attack :", European Journal of Emergency Medicine, 2014. Publication	3%
3	Neha Lodha, Jane Harrell, Stephan Eisenschenk, Evangelos A. Christou. "Motor Impairments in Transient Ischemic Attack Increase the Odds of a Subsequent Stroke: A Meta-Analysis", Frontiers in Neurology, 2017 Publication	3%
4	Brazzelli, M., FM Chappell, H Miranda, K Shuler, MS Dennis, PAG Sandercock, K Muir,	2%

and JM Wardlaw. "Diffusion-weighted imaging and diagnosis of transient ischaemic attack", Annals of Neurology, 2013.
Publication

---

5 Hosier, Gregory W., Stephen J. Phillips, Steve P. Doucette, Kirk D. Magee, and Gordon J. Gubitz. "Transient ischemic attack: management in the emergency department and impact of an outpatient neurovascular clinic", CJEM, 2016. 2%
Publication

---

6 Philippa Lavallée, Pierre Amarenco. "TIA Clinic: A Major Advance in Management of Transient Ischemic Attacks", S. Karger AG, 2013 2%
Publication

---

7 J. Wong, M. Fotherby, D. Eveson. "Comparison of ABCD2 scoring between first healthcare-contact and stroke-specialist physicians for transient ischaemic attack in a rapid-access clinic", Age and Ageing, 2011 2%
Publication

---

8 Wong, J., M. Fotherby, and D. Eveson. "Comparison of ABCD2 scoring between first healthcare-contact and stroke-specialist physicians for transient ischaemic attack in a rapid-access clinic", Age and Ageing, 2012. 2%
Publication

9	Sacco, Ralph L., and Tatjana Rundek. "The Value of Urgent Specialized Care for TIA and Minor Stroke", New England Journal of Medicine, 2016. Publication	2%
10	Maria Guarino, Francesca Rondelli, Elisabetta Favaretto, Andrea Stracciari et al. "Short- and Long-Term Stroke Risk after Urgent Management of Transient Ischaemic Attack: The Bologna TIA Clinical Pathway", European Neurology, 2015 Publication	1%
11	Chardoli, Mojtaba; Khajavi, Alireza; Nouri, Mohsen and Rahimi-Movaghar, Vafa. "Value of ABCD² in Predicting Early Ischemic Stroke in Patients Diagnosed with Transient Ischemic Attack", Acta Medica Iranica, 2013. Publication	1%
12	Mittal, Manoj, Ann Farrell, and Harsh Gupta. "Transient ischemic attacks: predictability of future ischemic stroke or transient ischemic attack events", Therapeutics and Clinical Risk Management, 2014. Publication	1%
13	G. Telman. "Comparison of risk factors and work-up in young and middle-aged patients with TIA and ischaemic stroke", European	1%

Journal of Neurology, 04/2010
Publication

14	"Beneficial Effect of Carotid Endarterectomy in Symptomatic Patients with High-Grade Carotid Stenosis", New England Journal of Medicine, 08/15/1991 Publication	1%
15	Key Topics in Management of the Critically Ill, 2016. Publication	1%
16	Maier, I. L., M. Bauerle, P. Kermer, H.-J. Helms, and T. Buettner. "Risk prediction of very early recurrence, death and progression after acute ischaemic stroke", European Journal of Neurology, 2013. Publication	1%

Exclude quotes	On	Exclude matches	< 1%
Exclude bibliography	Off		