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ABSTRACT BOOK

The 25th Congress of the Asian Society for Vascular Surgery (ASVS)

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Annals of Vascular Diseases

Asian Society for Vascular Surgery

Published by the Editorial Committee of Annals of Vascular Diseases

The first issue of the Annals of Vascular Diseases was published in Japan, in 2007.

The Journal publishes peer-reviewed original research articles, editorials, reviews, and case reports in vascular research, vascular medicine, surgery, and allied fields. To aid in the development of the growing field of vascular medicine in Asia, the Japanese College of Angiology, the Japanese Society for Vascular Surgery and the Japanese Society of Phlebology collaborated to sponsor this new journal. Since October 2008, AVD is the official journal of Asian Society for Vascular Surgery.

The Journal encourages and welcomes authors, particularly from Asian countries, to submit original, professional works on clinical and other investigations relating to vascular diseases and agiology.

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Free Paper session 4: Vascular Asscess for Hemodialysis

- VH-O-001 **the safety and efficacy of pta combined catheter-directed thrombolysis for treatment of avg acute thrombosis in hemodialysis patients**
Bin Chen¹, Yonghui Huang¹
¹The First Affiliated Hospital, Sun Yat-sen University
- VH-O-002 **Development of a Sun Yat-sen sharp recanalization scoring system for thoracic venous occlusive disease in hemodialysis patients**
Bin Chen¹, Yitao Mao², Yonghui Huang²
¹The First Affiliated Hospital, Sun Yat-sen University, ²Xiangya Hospital of Central South University
- VH-O-003 **Risk score for the prediction of arteriovenous fistula maturation**
Lingyan Meng¹, Jackie Ho Pei¹
¹National University of Singapore
- VH-O-004 **Enhancing AVF success: The role of pre-operative ultrasound vein mapping**
Mei Ping Melody Koo¹, Hansraj Riteesh Bookun²
¹St Vincent's Hospital Melbourne, ²St Vincent's Hospital Melbourne
- VH-O-005 **Management and outcomes of vascular access-related hand ischaemia in Victoria, Australia: A retrospective study**
Mei Ping Melody Koo¹, Hansraj Riteesh Bookun¹
¹St Vincent's Hospital Melbourne
- VH-O-006 **Vascular plug repair of iatrogenic innominate vein perforation: A case report**
Hsiu-An Lee¹, Fang-Chun Wu², Tsun-Jui Liu²
¹National Chung-Hsing University, Taichung, Taiwan, ²Taichung Verterans General Hospital, Taichung City, Taiwan
- VH-O-007 **Comparison of two early cannulation grafts for hemodialysis- uni-center, retrospective analysis**
Mingli Li¹, Hsiuming Lee², Chi Yu²
¹China Medical University Hospital, ²Chang Gung Memorial Hospital, Lin-Kou
- VH-O-008 **Comparison of forearm edema after loop forearm arteriovenous graft between intraoperative transcutaneous triamcinolone acetone injection and no injection**
Chantawit Chamnan¹, Suthas Horsirimanont², Nutsiri Kittitirapong²
¹Rayong Hospital, ²Division of Vascular and Transplant Surgery, Department of Surgery, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand
- VH-O-009 **Delamination of acuseal graft is the main cause of secondary patency loss – Early unicenter experience**
Chi Yu¹, Mingli Li¹, Hsiuming Lee²
¹China Medical University Hospital, ²Chang Gung Memorial Hospital, Lin-Kou

- VH-O-010 **Is stent graft for upper arm arteriovenous graft more “Durable” than forearm arteriovenous graft?**
Chen, Pei-Yu¹, Lin, Ting-Yi¹, Li, Ming-Li¹
¹*China Medical University Hospital*
- VH-O-011 **Mid- to long-term follow up outcomes of autogenous arteriovenous fistula in patients on hemodialysis**
Hailei Li¹, Kristine J.S. Kwan², Yiu Che Chan², Stephen W.K. Cheng²
¹*Division of Vascular Surgery, Department of Surgery, The University of Hong Kong, Queen Mary Hospital*, ²*Department of Vascular Surgery, Fudan University Pudong Medical Center, Shanghai Key Laboratory of Vascular Lesions Regulation and Remodeling, Shanghai, China*
- VH-O-012 **Quantification of steal flow on doppler ultrasound in patients with arteriovenous graft for hemodialysis**
Hee Chul Yu¹, Hong Pil Hwang¹
¹*Jeonbuk National University Hospital*
- VH-O-013 **Ultrasound-guided fistuloplasty versus fluoroscopy-guided fistuloplasty in patients with arteriovenous access flow dysfunction: A randomized controlled study**
Ehab Said¹, Muhammad Syafiq Idris¹, Putera Mas Pian², Ahmad Rafizi Hariz Ramli²
¹*University Malaya Medical Centre, Malaysia*, ²*Hospital Kuala Lumpur, Malaysia*
- VH-O-014 **Re-evaluating the role of backup arteriovenous fistulas in peritoneal dialysis: Insights from a contemporary retrospective cohort study**
Dr Lakmali Anthony¹, Mr Stephen Thwaites¹, Dr Amos Au¹
¹*Monash Health, Victoria, Australia*
- VH-O-015 **Comparative impact of BMI and sarcopenia on arteriovenous fistula/graft outcomes in hemodialysis patient**
JeeHyun Park¹, Kyu-Chong Lee²
¹*Department of Transplantation and Vascular Surgery, Korea University Anam Hospital*, ²*Department of Radiology, Korea University Anam Hospital*
- VH-O-016 **Comparing the success, complications, and longevity of femoral vein transposition and arteriovenous graft in dialysis patients lacking alternative vascular access points**
Hossein Hemmati¹, Mohammad Taghi Ashoobi¹, Seyyed Mostafa Zia Ziabari², Habib Eslami Kenarsari³, Mohaya Farzin⁴, Sepideh Atef Rad⁵
¹*Department of Vascular Surgery, Razi Clinical Research Development Unit, Razi Hospital, Guilan University of Medical Sciences, Rasht, Iran*, ²*Department of Surgery, Razi Clinical Research Development Unit, Guilan University of Medical Sciences, Rasht, Iran.*, ³*Master of Biostatistics, Razi Clinical Research Development Unit, Guilan University of Medical Sciences, Rasht, Iran*, ⁴*Department of Physiology, Razi Clinical Research Development Unit, Guilan University of Medical Sciences, Rasht, Iran.*, ⁵*Master of Genetics, Razi Clinical Research Development Unit, Guilan University of Medical Sciences, Rasht, Iran*
- VH-O-017 **Comparison of loop and straight forearm arteriovenous grafts in hemodialysis access**
Iksoo Shin¹, Youngjin Han¹
¹*Division of Vascular Surgery, Department of Surgery, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea*

- VH-O-018 **Vascular surgery for renal access in high-risk patients: Insights from a tertiary centre**
 Shahzad Sadiq¹, Hansraj Riteesh Bookun²
¹Department of Surgery, University Hospital Geelong, Victoria, Australia, ²Grampians Health, Ballarat Base Hospital, Victoria, Australia
- VH-O-019 **The crisis of dialysis access in Saudi Arabia: A call to action**
 Tariq Alanezi¹, Sultan AlSheikh¹, Abdulmajeed Altoijry¹, Kaisor Iqbal¹, Badr Aljabri¹, Ahmed Afandi²
¹Division of Vascular Surgery, Department of Surgery, College of Medicine, King Saud University, Riyadh, Saudi Arabia., ²Division of Vascular Surgery, Department of Surgery, King Fahad Armed Forces Hospital, Jeddah, Saudi Arabia
- VH-O-020 **Recurrent thrombosed early cannulation graft caused by elastomer layer dissection**
 Chun-Tien, Chu¹, Mingli Levin Li², You-Chian Lin², Chih-Hsiang Hsu², Yu-Yun Nan², Chih- Chung Ting², Ping Chun Li², Ching-Feng Wu²
¹Department of Surgery, China Medical University Hospital, ²Division of Cardiovascular Surgery, China Medical University Hospital
- VH-O-022 **Clinical outcomes and quality of life after arteriovenous fistula creation in patients with and without preexisting central venous catheters for hemodialysis**
 Kochaphan Phirom¹, Amaraporn Rerkasem¹, Termpong Reanpang², Sothida Nantakool³, Chanawit Sitthisombat⁴, Supachok Maspakorn⁴, Puntapong Taruangsri⁵, Sasinat Pongtam⁵, Kittipan Rerkasem⁵
¹Environmental - Occupational Health Sciences and Non Communicable Diseases Research Center, Research Institute for Health Sciences, Chiang Mai University, Chiang Mai, Thailand, ²Department of Surgery, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand, ³Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Chiang Mai, Thailand, ⁴Department of Surgery, Chiang Rai Prachanukroh Hospital, Chiang Rai, Thailand, ⁵Department of Internal Medicine, Nakhonping hospital, Chiang Mai, Thailand
- VH-O-024 **Treatment modalities for radiocephalic arteriovenous fistulas (AVFS) with poor outflow**
 Wonjong Kim¹
¹Dodam Vascular Surgery
- VH-O-028 **Outcomes of percutaneous balloon angioplasty without thrombolysis for salvage of thrombosed arteriovenous grafts**
 Sunil Rajendran¹, Roma Paul², Manoj SH², Rakshith Mohan²
¹Starcare Hospital Kozhikode, ²Starcare Hospital, Kozhikode
- VH-O-030 **Artificial intelligence-based prediction of radio-cephalic arteriovenous fistula maturation using preoperative duplex examination**
 Cho Ara¹, Sanghyun Ahn¹, Jang Yong Kim², Jung Kyun Hyun³, Yong Hwan, Kim³, Hyang Kyoung Kim⁴
¹Department of Surgery, Seoul National University hospital, Seoul, Korea, ²Departments of Surgery, The Catholic University of Korea, St. Mary's Hospital, Seoul, Korea, ³Spass Incorporation, Seoul, Korea, ⁴Department of Surgery, Ewha Womans University College of Medicine, Ewha Womans University Medical Center, Seoul, Korea

- VH-O-033 **Leg ulcer and venous symptoms related to lower extremity arteriovenous access for hemodialysis: A retrospective review**
 Supamong Arworn¹, Poon Apichartpiyakul¹, Termpong Reanpang¹, Chayatorn Chansakaow¹, Saranat Orrapin¹, Myo Zin Oo², Kittipan Rerkasem²
¹Department of Surgery, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand, ²Environmental - Occupational Health Sciences and Non Communicable Diseases Research Center, Research Institute for Health Sciences, Chiang Mai University, Chiang Mai, Thailand
- VH-O-034 **Ultrasonic-guided injection thrombolysis in the treatment of permanent vascular access thrombosis**
 Dmitriy Kornilov¹, Alexander Maximov¹
¹Nizhnevartovsk District Clinical Hospital
- VH-O-035 **Does stepped grafts decrease the hemodynamic change after hemodialysis access creation? the finger-brachial index evaluation: randomized controlled trial**
 Patompong Akkarapattanakool¹, Piyanut Pootracool²
¹Department of Surgery, Ayutthaya Hospital, ²Department of Surgery, Ramathibodi Hospital
- VH-O-036 **Comparative outcomes of dialysis vascular access in kidney transplant patients**
 Minyu Kang¹, Hwa-Hee Koh¹, Young Jin Yoo¹, Seon-Hee Heo², Soo Jin Kim²
¹Departments of Surgery, Yonsei University College of Medicine, Seoul, Republic of Korea, ²The Research Institute for Transplantation, Yonsei University College of Medicine, Seoul, Republic of Korea
- VH-O-037 **The utility of pre-operative ultrasound guided vein mapping in arteriovenous fistula formation**
 Casey Hiu Ching Fung¹, Phil Yi Jun Lu², Yahya Lahham³
¹Vascular Surgery Department, St Vincent's Hospital Melbourne, Australia, ²Department of Vascular Surgery, Peninsula Health, Frankston, Australia, ³Department of Vascular Surgery, St Vincent's Hospital Melbourne, Australia
- VH-O-038 **Application of estimated glomerular filtration rate decline rate to optimize timing of pre-emptive arteriovenous fistula creation for chronic kidney disease patients**
 Panuwat Chueomor¹, Kittipan Rerkasem², Apichat Tantraworasin³, Jiraporn Khorana³, Theerachai Thammathiwat³
¹Department of Surgery, Faculty of Medicine, Naresuan university, Phitsanulok, Thailand, ²Department of Surgery and Clinical Surgical Research Centre, Faculty of Medicine, Chiangmai university, Chiangmai, Thailand, ³Department of Surgery and Clinical Surgical Research Centre, Faculty of Medicine, Chiangmai university, Chiangmai, Thailand
- VH-O-039 **Far infrared therapy on pre-operative vein dilatation in arteriovenous fistula creation. A randomized-controlled trial**
 Ngo Choon Wei¹, Lenny Suryani binti Safri², Mohamad Azim bin Mohamad Idris², Kishen Raj A/L Chandra Sakaran², Hisham Arshad bin Habeebullah Khan²
¹Department of Surgery, Hospital Canselor Tuanku Muhriz, ²Vascular Unit, Department of Surgery, Hospital Canselor Tuanku Muhriz

- VH-O-040 **Comparative study outcomes of endovascular treatment and open bypass surgery in the treatment of central vein stenosis with hemodialysis vascular access**
Leenawat Jamjumrat¹, Saritphat Orrapin¹, Boonying Siribumrungwong¹
¹Department of Surgery Faculty of Medicine, Thammasat University Hospital
- VH-O-041 **The extra-anatomical axilla-to-femoral vein bypass plus modified miller banding procedure for exhausted venous access with high flow fistula: A case report**
Fajar Satria Rahmaditya¹, Akhmadu Muradi¹
¹Vascular and Endovascular Surgery Division, Cipto Mangunkusumo Hospital - University of Indonesia
- VH-O-043 **Balancing cost, infection, and time to functional fistula use in hemodialysis access: single-stage vs. two-stage brachiobasilic fistula**
Ahmad A¹, MF Abd Aziz², MNA Abd Rahman², AF Othman²
¹SASMEC@IIUM, ²Department of Surgery, Kuliyyah of Medicine, IIUM
- VH-O-045 **Single Taiwan center experience between 3-layer (FLIXENE™) and 2-layer ePTFE (Gore Interling) arteriovenous graft**
Chun-ming Huang¹
¹Cardiovascular Surgery Department, AnNan Hospital China Medical University

Balancing cost, infection, and time to functional fistula use in hemodialysis access: Single-stage vs. two-stage brachiobasilic fistula

Ahmad A¹, MF Abd Aziz², MNA Abd Rahman², AF Othman²

¹SASMEC@IIUM, ²Department of Surgery, Kuliyyah of Medicine, IIUM

Objective: This study compares single-stage versus two-stage brachiobasilic arteriovenous fistula (BBAVF) creation for hemodialysis access, specifically examining total procedural costs, catheter-related bloodstream infection (CRBSI) rates, and time to functional fistula use.

Methods: This retrospective cohort study included patients who underwent either single-stage or two-stage BBAVF creation between 2023 and 2024. Patients were grouped by procedure type, and outcome metrics such as total healthcare costs (including surgical, hospital, and follow-up costs), CRBSI incidence, and time to fistula use were analyzed.

Results: The single-stage BBAVF approach was associated with significantly lower total costs compared to the two-stage approach. Costs for the single-stage procedure ranged from RM50 to RM1200, while the two-stage procedure ranged from RM930 to RM4000. The cost savings in the single-stage group were attributed to reduced surgical sessions, fewer interim catheter placements, and a shorter time to functional fistula use. In terms of CRBSI incidence, the single-stage method showed a notable reduction in infection rates, likely due to decreased dependence on temporary central venous catheters during the maturation period. This reduction in CRBSI is clinically relevant, as it reduces hospital readmissions, lowers overall morbidity, and minimizes the risks and complications associated with bloodstream infections. The average weekly admission cost for CRBSI was estimated to be around RM1500. The CRBSI rate in single-stage BBAVF is approximately 7.7%, whereas the rate in two-stage BBAVF is significantly higher at 66.7%. This stark difference indicates a markedly lower infection risk in single-stage BBAVF creation compared to the two-stage approach.

In terms of time to fistula use, single-stage BBAVF allowed for faster access readiness, reducing the need for interim catheter use and associated complications.

Conclusions: Single-stage BBAVF creation presents a cost-effective alternative to the traditional two-stage approach by offering significant reductions in healthcare costs and CRBSI rates. Although the two-stage approach may offer certain procedural advantages, the reduced CRBSI incidence and total healthcare costs highlight the value of single-stage BBAVF for select patients. Clinicians should consider patient-specific factors, such as vascular anatomy, dialysis urgency, and comorbidities, to optimize clinical and economic outcomes. Future prospective studies are recommended to further validate these findings.

Disclosure: Author and co-authors has no disclosure.

Single Taiwan center experience between 3-layer (FLIXENE™) and 2-layer ePTFE (Gore Interling) arteriovenous graft

Chun-ming Huang¹

¹Cardiovascular Surgery Department, AnNan Hospital China Medical University

Objective: FLIXENE™ arteriovenous graft (AVG) was included in our health insurance reimbursement in recent 4 years. This study compares the outcomes of 3-layer (Flixene) to 2-layer (GORE® INTERLING®) polytetrafluoroethylene (ePTFE) AVG for cannulation durations, patency rates, and complications.

Methods: This is a retrospective study. All AVGs were placed between 2020/05 and 2024/06 at our center. Outcomes were to examine first cannulation durations, primary patency rates, primary assisted patency rates, secondary patency rates, and complication rates between Flixene and Gore Interling.

Results: 302 Flixene and 33 Gore Interling AVGs were placed in study period; most of them were placed in forearm (Flixene 57.6%, Gore Interling 80.6%). Cannulation duration was shorter in Flixene (Flixene 11.2 days vs Gore Interling 36.07 days, $p < 0.001$) (Flixene 0.1-36 days). Primary patency (Flixene 41% vs Gore Interling 32% at 1 yr), assisted primary patency (61% vs 61% at 1 yr, 36% vs 27% at 2 yr) and secondary patency rate (98% vs 98% at 1 yr, 98% vs 90% at 2 yr) were not statistically different. Besides, shorter duration of Permcath implantation (Flixene 37.2 vs. Gore Interling 51.7 days, $p = 0.002$), fewer Permcath before graft implantation (52% in Flixene, 79% in

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