CARMEDA® BioActive Surface (also known as CBAS® Heparin Surface) Reference List

Updated April, 2020
Preface

The CARMEDA® BioActive Surface (also known as CBAS® Heparin Surface) was invented in the early eighties, used clinically for the first time in 1986, and because of its outstanding thromboreistant properties numerous of medical devices coated with this surface technology have since then been marketed worldwide. Today the CARMEDA® BioActive Surface is the most clinically proven and published surface technology for medical devices used in contact with blood.

This reference list is a living document aimed at gathering references around the CARMEDA® BioActive Surface and on the clinical performance of the products featuring this surface technology. It provides a true and unbiased picture of the technology. Overall, this reference list provides evidence of the CARMEDA® BioActive Surface’s safe, efficient and superior thromboreistant and biocompatible benefits for both short-term and permanent blood-contacting medical devices.

Note that the list contains references describing the off-label use of some products. It is not intended to be used to promote the off-label use of a product. Consult the Instructions for Use for the product in your country.
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Basic Science


Experimental In Vitro

Biocompatibility


**Experimental In Vitro**

**Other**


71) Dwyer A, Sukavaneshvar S, Nimkar S, Aronoff G. In Surface heparinization of hemodialysis catheters reduces thrombus and fibrin sheath formation. *ASDIN Annual scientific meeting, 2006*.


**Experimental In Vivo**

**Extracorporeal Circulation - Cardiovascular Surgery**


Experimental *In Vivo*

Extracorporeal Circulation - Long Term Assist


Experimental In Vivo Extracorporeal Circulation - Other


Experimental In Vivo Ventricular Assist


**Experimental *In Vivo***

Peripheral Vascular Surgery


**Experimental *In Vivo***

Peripheral Stenting


**Experimental *In Vivo***

Coronary Stenting


**Experimental In Vivo**

**Other**


**Clinical**

**Extracorporeal Circulation - Cardiovascular Surgery**


Clinical Extracorporeal Circulation - Long Term Assist


**Clinical**

**Extracorporeal Circulation - Other**


Clinical Ventricular Assist


Case Reports


Clinical

Peripheral Vascular Surgery


408) Thorat A, Jeng LB, Yang HR, Li PC, Li ML, Yeh CC, Chen TH, Hsu SC, Poon KS. Outflow reconstruction for right liver allograft with multiple hepatic veins: "V-plasty" of hepatic veins to form a common outflow channel versus 2 or more hepatic vein-to-inferior vena cava anastomoses in limited retrohepatic space. Liver Transpl 2016, 22(2): 192-200.


Case Reports


**Clinical**

**Peripheral Stenting**


*Eur J Vasc Endovasc Surg* 2016, 52(1): 99-104.


478) Vesely T, DaVanzo W, Behrend T, Dwyer A, Aruny J. Balloon angioplasty versus Viabahn stent graft for treatment of failing or thrombosed prosthetic hemodialysis grafts. 


481) Jones RG, Willis AP, Tullett K, Riley PL. Results of Stent Graft Placement to Treat Cephalic Arch Stenosis in Hemodialysis Patients with Dysfunctional Brachiocephalic Arteriovenous Fistulas. 


483) Aurshina A, Hingorani A, Marks N, Ascher E. Utilization of stent grafts in the management of arteriovenous access pseudoaneurysms. 


Case Reports


**Clinical**

**Aortic Surgery**


Case Reports


Clinical

Aortic Stenting


564) Hsu CP, Huang CY, Chen HT. Combined surgical and endovascular treatment with arch preservation of acute DeBakey type I aortic dissection. 

565) Mafeld Sebastian, Annamalai Ganesan, Lindsay Thomas F, Zhong Iris, Tarulli Emidio, Mironov Oleg, Tan Kong-Teng. Initial Experience With Viabahn VBX as the Bridging Stent Graft for Branched and Fenestrated Endovascular Aneurysm Repair. 


*Am Surg* 2019; 85(9): e446-e448.


Case Reports


573) Whitbeck MG. Treatment of focal distal abdominal aortic stenosis with the GORE VIABAHN VBX balloon expandable covered stent. 
574) Teixeira G, Matos A, de Almeida R, Lobato AC. Total Endovascular Aortic arch Replacement with Chimney/Sandwich Techniques. 

**Clinical**

**Coronary Stenting**


578) Williams DO. Dressing up the Palmaz-Schatz stent. 

579) Stone GW, Brodie BR, Griffin JJ, Morice MC, Costantini C, St Goar FG, Overlie PA, Popma JJ, McDonnell J, Jones D, O'Neill WW, Grines CL. Prospective, multicenter study of the safety and feasibility of primary stenting in acute myocardial infarction: inhospital and 30-day results of the PAMI stent pilot trial. Primary Angioplasty in Myocardial Infarction Stent Pilot Trial Investigator. 


582) Dzavik V, Carere RG, Teo KK, Knudtson ML, Marquis JF, Buller CE. An open design, multicentre, randomized trial of percutaneous transluminal coronary angioplasty versus stenting, with a heparin-coated stent, of totally occluded coronary arteries: rationale, trial design and baseline patient characteristics. Total O. 


586) van der Giessen WJ. Heparin-Coated Coronary Stents.


588) Berger PB, Dzavik V, Penn IM, Catellier D, Buller CE. Does ticlopidine reduce reocclusion and other adverse events after successful balloon angioplasty of occluded coronary arteries? Results from the Total Occlusion Study of Canada (TOSCA).


591) Gurbel PA, Bliden KP. Platelet activation after stenting with heparin-coated versus noncoated stents.

592) Carrozza JP Jr. Preventing subacute stent thrombosis - is there a role for heparin-coated stents?

593) Ruygrok PN, Sim KH, Chan C, Rachman OJ, Adipranoto JD, Trisnohadi HB, Stewart JT, Ahmad N, Mak KH, Yusak M, Boestan I, Santoso T, Suryapranata H. Coronary intervention with a heparin-coated stent and aspirin only.


Clinical

Cardiac Surgical and Endovascular Repairs


Case Reports


Clinical

Carotid Artery


### Clinical

### Other


**Review Articles**


651) Larsson R. Heparin-binding to improve biocompatibility. *Encycl Biomat Biomedical Eng Marcel Dekker* **2005**.


