

Drug Treatment by Central Venous Catheter in a Mouse Model of Angiotensin II Induced Abdominal Aortic Aneurysm and Monitoring by 3D Ultrasound

Nahla Ibrahim¹, Johannes Klopff¹, Sonja Bleichert¹, Marc A. Bailey^{2,3}, Albert Busch⁴, Alexander Stiglbauer-Tscholakoff⁵, Wolf Eilenberg¹, Christoph Neumayer¹, Christine Brostjan¹

¹Division of Vascular Surgery, Department of General Surgery, Medical University of Vienna and Vienna General Hospital ²Leeds Institute for Cardiovascular and Metabolic Medicine, School of Medicine, University of Leeds ³Leeds Vascular Institute, Leeds General Infirmary ⁴Department for Visceral, Thoracic and Vascular Surgery, Technical University of Dresden and University Hospital Carl-Gustav Carus ⁵Division of Cardiovascular and Interventional Radiology, Division of Molecular and Gender Imaging, Department of Biomedical Imaging and Image Guided Therapy, Medical University of Vienna and Vienna General Hospital

Corresponding Author

Christine Brostjan

christine.brostjan@meduniwien.ac.at

Citation

Ibrahim, N., Klopff, J., Bleichert, S., Bailey, M.A., Busch, A., Stiglbauer-Tscholakoff, A., Eilenberg, W., Neumayer, C., Brostjan, C. Drug Treatment by Central Venous Catheter in a Mouse Model of Angiotensin II Induced Abdominal Aortic Aneurysm and Monitoring by 3D Ultrasound. *J. Vis. Exp.* (186), e64124, doi:10.3791/64124 (2022).

Date Published

August 4, 2022

DOI

10.3791/64124

URL

jove.com/video/64124

Materials

Name	Company	Catalog Number	Comments
4-0 Polysorb sutures	Covidien	GL-46-MG	Braided absorbable suture CV-23 Taper
6-0 Silk sutures	Ethicon	639H	PERMA-HAND Silk
ALZET 2004 osmotic pumps	DURECT Corp	298	Osmotic mini pumps
Angiotensin-II	Bachem	4006473.0100	Angiotensin II acetate
Aquasonic Clear Ultrasound Transmission Gel	Parker Labs	PUSG-0308	Ultrasound gel
Betadona Wound Spray	Mundipharma		Wound disinfectant spray (povidone-iodine spray)
Betaisodona Solution	Mundipharma	15973	Wound disinfectant solution (povidone-iodine solution)
Catheter for mouse femoral vein/artery	Instech Laboratories Inc	C10PU-MFV1301	1 to 3Fr, 10.5 cm, collar @1.2 cm. Fits 22 G
Hair removal cream			
Handling tool	Instech Laboratories Inc	VABMG	Handling tool for magnetic mouse Vascular Access Buttons
HYLO NIGHT Eye Ointment	URSAPHARM	538922	Eye lubricant cream
Needles and syringes of various sizes			1 mL and 5 mL syringes, 27 G and 30 G needles
Olympus SZ51 Stereo microscope	Olympus Corporation		Dissection and inspection microscope
PinPort injectors	Instech Laboratories Inc	PNP3M-50	Injector for vascular access button
Protective aluminum cap	Instech Laboratories Inc	VABM1C	Protective aluminum cap for magnetic 1 channel mouse VAB

Signa Electrode Ultrasound Gel	Parker Labs	PE-1560	Electrode gel
Small electric shaver			
Surigcal and microsurgical equipment			
Suprasorb C	Lohmann & Rauscher	20482	Collagen wound dressing
Vascular access button (VAB)	Instech Laboratories Inc	VABM1B/22	Vascular Access Button for mouse, magnetic, 1 channel 22 G, injector
Vevo 3100 Imaging System	FUJIFILM VisualSonics Inc	51073-51	Ultrasound system
Vevo Lab 5.6.1 software	FUJIFILM VisualSonics Inc		Ultrasound analysis software
Vevo MX550D transducer	FUJIFILM VisualSonics Inc		Linear Array Transducer For Vevo 3100 system
Vevo Mouse Handling Table	FUJIFILM VisualSonics Inc	11436	Mouse heating, mouse core temperature capture and ECG pads for physiological monitoring