

# A Large Animal Model for Pulmonary Hypertension and Right Ventricular Failure: Left Pulmonary Artery Ligation and Progressive Main Pulmonary Artery Banding in Sheep

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## Citation

Ukita, R., Stokes, J.W., Wu, W.K., Talackine, J., Cardwell, N., Patel, Y., Benson, C., Demarest, C.T., Rosenzweig, E.B., Cook, K., Tsai, E.J., Bacchetta, M. A Large Animal Model for Pulmonary Hypertension and Right Ventricular Failure: Left Pulmonary Artery Ligation and Progressive Main Pulmonary Artery Banding in Sheep. *J. Vis. Exp.* (173), e62694, doi:10.3791/62694 (2021).

## Date Published

July 15, 2021

## DOI

10.3791/62694

## URL

jove.com/video/62694

## Materials

Name	Company	Catalog Number	Comments
0.9% Sodium Chloride Irrigation Pour Bottle by Baxter Healthcare, 1000 mL	Medline	BHL2F7124	Surgical Disposable
0.25% Bupivacaine	Hospira Inc	0409-1160-18	Medication, Intra-Operative
0.9% Normal Saline, 1000 mL	Baxter Healthcare Corp	0338-0049-04	Medication, Intra-Operative
0.9% Normal Saline, 500 mL	Baxter Healthcare Corp.,	0338-0049-03	Medication, Chronic PH
16 mm Heavy Duty Occluder with actuating tubing	Access Technologies	OC-16HD	Surgical Disposable
3-mL Skin Prep Applicator	Medline	MDF260400	Surgical Disposable
70% isopropyl alcohol prep pads	Medline	MDS090670	Disposable, Chronic PH
Adhesive bandage tape	Patterson Veterinary	07-835-7776	Disposable, Chronic PH
Adson forceps	V. Mueller	NL1400	Surgical Instrument
Allis tissue forceps	V. Mueller	CH1560	Surgical Instrument
Aortic clamp, straight (bainbridge forceps)	V. Mueller	SU6001	Surgical Instrument
Backhaus towel forceps	V. Mueller	SU2900	Surgical Instrument
Bags, Infusion: Nonsterile Novaplus Infusion Bag, 500 mL	Medline	TCV4005H	Disposable, Chronic PH
Berry sternal needle holder	V. Mueller	CH2540	Surgical Instrument
Blades, Electrode: Electrode Blade, 6.5", with 0.24 cm Shaft	Medline	VALE15516	Surgical Disposable

Blades: Stainless-Steel Sterile Surgical Blade, Size #10	Medline	B-D371210	Surgical Disposable
Blades: Stainless-Steel Sterile Surgical Blade, Size #11	Medline	B-D371211	Surgical Disposable
Blades: Stainless-Steel Sterile Surgical Blade, Size #15	Medline	B-D371215	Surgical Disposable
BNC Male to BNC Male Cable	Digi-Key	415-0198-036	Equipment
Castroviejo needle holder	V. Mueller	CH8589	Surgical Instrument
Cefazolin	Apotex Corp	60505-6142-0	Medication, Intra-Operative
Ceftiofur Crystalline Free Acid	Zoetis Inc	54771-5223-1	Medication, Post-Operative
Chest Drain, with Dry Suction, Adult-Pediatric	Medline	DEKA6000LFH	Surgical Disposable
Chest tube passer	V. Mueller	CH04189	Surgical Instrument
COncidence Flowprobes for Research (PAU-Series)	Transonic	24PAU	Equipment, Perivascular Flow Probe
Cooley tangential occlusion clamp	V. Mueller	CH6572	Surgical Instrument
Data Acquisition Hardware	ADInstruments	PowerLab 16/30	Equipment
DeBaKey Aorta clamp	V. Mueller	CH7247	Surgical Instrument
DeBaKey multi-purpose clamp	V. Mueller	CH7276	Surgical Instrument
DebaKey tissue forceps, 12"	V. Mueller	CH5906	Surgical Instrument
DebaKey vascular tissue forceps 7 3/4"	V. Mueller	CH5902	Surgical Instrument
DebaKey vascular tissue forceps, 9"	V. Mueller	CH5904	Surgical Instrument
Electrosurgical Generator	Covidien	Force FX-C	Equipment
Endotracheal Tube, 10mm	Patterson Veterinary	07-882-9008	Surgical Disposable
Enrofloxacin	Norbrook Laboratories Limited	55529-152-05	Medication, Intra-Operative
Fentanyl Transdermal Patch	Apotex Corp	60505-7007-2	Medication, Pre-Operative
Ferris smith tissue forceps	V. Mueller	SU2510	Surgical Instrument
Finochietto rib spreaders, large	V. Mueller	CH1220-1	Surgical Instrument
Finochietto rib spreaders, medium	V. Mueller	CH1215-1	Surgical Instrument
Flexsteel ribbon retractor, 1" x 13"	V. Mueller	SU3340	Surgical Instrument
Flexsteel ribbon retractor, 2" x 13"	V. Mueller	SU3346	Surgical Instrument
Foerster sponge forceps, curved	V. Mueller	GL660	Surgical Instrument
Gauze Sponges: Sterile X-ray Compatible Gauze Sponges, 16-Ply, 4" x 4"	Medline	PRM21430LFH	Surgical Disposable
Gerald-DeBaKey forceps	V. Mueller	CH04242	Surgical Instrument
Glassman Allis	V. Mueller	SU6152	Surgical Instrument
Halsted mosquito forceps	V. Mueller	SU2702	Surgical Instrument
Harken clamp	V. Mueller	CH6462	Surgical Instrument
Heat Therapy Pump	Gaymar/Stryker	TP-400	Equipment
Heparin	Fresenius Kabi,	63323-540-31	Medication, Chronic PH
Hospira Primary IV Sets, 80"	Patterson Veterinary	07-835-0123	Surgical Disposable
Hypertonic saline 3%	Baxter Healthcare Corp.,	0338-0054-03	Medication, Chronic PH
Hypodermic Needle with Bevel and Regular Wall, 20 G x 1"	Medline	B-D305175Z	Disposable, Chronic PH
Interface Cable, Edwards LifeScience Transducer to ADInstruments Bridge Amplifier	Fogg System	0395-2434	Equipment
Intravenous Infusion Pump	Heska	Vet/IV 2.2 Infusion Pump	Equipment
Isoflurane	Patterson Veterinary	14043-704-06	Medication, Pre-Operative

Kantrowitz thoracic clamp, 9-1/2"	V. Mueller	CH1722	Surgical Instrument
Kelly hemostats	V. Mueller	88-0314	Surgical Instrument
Lidocaine HCl, 2.46%	PRN Pharmacal,	49427-434-04	Medication, Chronic PH
Ligaclip Multiple-Clip Appliers by Ethicon	Medline	ETHMCS20	Surgical Disposable
Loop, Vessel, Mini, Red, 2/pk, Sterile	Medline	DYNJVL12	Surgical Disposable
Lorna non-perforating towel forceps	V. Mueller	SU2937	Surgical Instrument
Mayo dissecting scissors, curved	V. Mueller	SU1826	Surgical Instrument
Mayo dissecting scissors, straight	V. Mueller	SU1821	Surgical Instrument
Medipore Dress-It Pre-Cut Dressing Covers by 3M	Medline	MMM2955Z	Surgical Disposable
Meloxicam	Patterson Veterinary	14043-909-10	Medication, Post-Operative
Mixer thoracic forceps, 9"	V. Mueller	CH1730-003	Surgical Instrument
Mosquito hemostats	V. Mueller	88-0301	Surgical Instrument
Multi-Channel Research Consoles	Transonic	T402/T403	Equipment, Perivascular Flow Meter
Multi-Lumen Central Venous Catheterization Kits	Medline	ARW45703XP1AH	Surgical Disposable
Multi-Parameter Vital Signs Monitor	Smiths Medical	SurgiVet Advisor 3	Equipment
Needles: Hypodermic Needle with Regular Bevel, Sterile, 18 G x 1.5"	Medline	B-D305185Z	Surgical Disposable
No. 3 knife handle	V. Mueller	SU1403-001	Surgical Instrument
No. 7 knife handle	V. Mueller	SU1407	Surgical Instrument
Non-Vented Male Luer Cap	Qosina	13614	Disposable, Chronic PH
Octal Bridge Amplifier	ADInstruments	FE228	Equipment
Ophthalmic Ointment	Akorn Animal Health	59399-162-35	Medication, Pre-Operative
Penrose Tubing, 6 mm x 46 cm, 11 mm Flat	Medline	SWD514604H	Surgical Disposable
Perma-Hand Black Braided Silk: 2-0 SH Taperpoint Needle, Control Release, 30"	Medline	ETHD8552	Surgical Disposable
Perma-Hand Suture, Black Braided, Size 0, 6 x 30"	Medline	ETHA306H	Surgical Disposable
Perma-Hand Suture, Black Braided, Size 4-0, 12 x 30"	Medline	ETHA303H	Surgical Disposable
Phenylephrine	West-Ward	0641-6142-25	Medication, Intra-Operative
Polyhesive Cordless Patient Return Electrodes, Adult	Medline	SWDE7509	Surgical Disposable
Port-A-Cath Huber Needle, Straight, 22 G x 1-1/2"	Medline	AAKM21200724	Disposable, Chronic PH
PROLENE Monofilament Suture, Blue, Size 4-0, 36", Double Arm, RB-1 Needle	Medline	ETHD7143	Surgical Disposable
PROLENE Polypropylene Monofilament Suture, Blue, Double-Armed, RB-1 Needle, Size 5-0, 24"	Medline	ETH8555H	Surgical Disposable
Regional Block Needles, 22-gauge	Medline	B-D408348Z	Surgical Disposable
Schnidt tonsil artery forceps	V. Mueller	M01700	Surgical Instrument
Skin staple extractor	Medline	CND3031	Disposable, Chronic PH
Skin stapler 35 wide, with counter	Medline	STAPLER35W	Surgical Disposable
Sphygmomanometer	Patterson Veterinary	07-815-0464	Equipment
Sponge bowl	V. Mueller	GE-75	Surgical Instrument

Sponge, Lap: X-Ray Detectable Sterile Lap Sponge, 18" x 18", 5/ Pack	Medline	MDS241518HH	Surgical Disposable
Sponge, Peanut: X-Ray Detectable Sterile Peanut Sponge, Small, 3/8"	Medline	MDS72038	Surgical Disposable
Sterile Disposable Deluxe OR Towel, Blue, 17" x 27", 2/Pack	Medline	MDT2168202	Surgical Disposable
Sterile Luer-Lock Syringe, 3 mL	Medline	SYR103010Z	Disposable, Chronic PH
Sterile Luer-Lock Syringe, 5 mL	Medline	SYR105010Z	Disposable, Chronic PH
Sterile Surgical Equipment Probe Covers	Medline	DYNJE5930	Surgical Disposable
Stopcock: 3-Way Stopcock with Handle in OFF Position, Rotating Adaptor Male Collar Fitting, 45 PSI	Medline	DYNJSC301	Surgical Disposable
Stopcock: 3-Way Stopcock with Handle in OFF Position, Rotating Adaptor Male Collar Fitting, 45 PSI	Medline	DYNJSC301	Disposable, Chronic PH
Subcutaneous Port with 5-French Connector and Blue Boot	Access Technologies	CP2AC-5NC	Surgical Disposable
Super cut metzenbaum dissecting scissors	V. Mueller	CH2032-S	Surgical Instrument
Super cut nelson-metzenbaum dissecting scissors	V. Mueller	CH2025-S	Surgical Instrument
Syringes: Sterile Luer-Lock Syringe, 10 mL	Medline	SYR110010Z	Surgical Disposable
Thoracic Catheter, Straight, 28 Fr x 20"	Medline	SWD570549H	Surgical Disposable
Three-quarter surgical drape	Medline	DYNJP2414H	Surgical Disposable
Tiletamine + Zolazepam	Zoetis Inc	54771-9050-1	Medication, Pre-Operative
TourniKwik Tourniquet Set with Four 7.5" Bronze-Colored Tubes and 1 Snare, 12 French	Medline	CVR79013	Surgical Disposable
Transducer clip	Edwards LifeScience	TCLIP05	Equipment
Trigger Aneroid Gauge (Sphygmomanometer)	Patterson Veterinary	07-815-0464	Equipment
TruWave Disposable Pressure Transducer Kits by Edwards Lifesciences	Medline	VSYPX260	Surgical Disposable and Chronic PH
TS420 Perivascular Flow Module	Transonic	TS420	Equipment, Perivascular Flow Meter
Tubing, Suction: Sterile Universal Suction Tubing with Straight Ribbed Connectors, 1/4" x 12'	Medline	OR612	Surgical Disposable
Tubing: Pressure Monitoring Tubing with Fixed Male Luer Lock and Female Fitting, Low Pressure, 72" L	Medline	DYNJPMTBG72MF	Surgical Disposable
Tubing: Pressure Monitoring Tubing with Fixed Male Luer Lock and Female Fitting, Low Pressure, 72" L	Medline	DYNJPMTBG72MF	Disposable, Chronic PH
Tubular Elastic Dressing Retainer	Medline	DERGL711	Disposable, Chronic PH
Tuffier rib retractor	V. Mueller	CD1101	Surgical Instrument
Tygon E-3603 Flexible Tubings	Fisher Scientific	14-171-227	Surgical Disposable
U.S.A retractor	V. Mueller	SU3660	Surgical Instrument
Umbilical Tape, Cotton, 3-Strand, 1/8 x 36"	Medline	ETHU12TH	Surgical Disposable
Valleylab Button Switch Pencil	Medline	VALE2516H	Surgical Disposable
Vanderbilt deep vessel forceps	V. Mueller	CH1687	Surgical Instrument

Veterinary Anesthesia Machine	Midmark	Matrx VMC	Equipment
Veterinary Anesthesia Ventilator	Hallowell EMC	Model 2000	Equipment
Vicryl: Undyed Coated Vicryl 0 CT-1 36" Suture	Medline	ETHVCP946H	Surgical Disposable
Vicryl: Undyed Coated Vicryl 2 TP-1 Taper 54" Suture	Medline	ETHVCP880T	Surgical Disposable
Vicryl: Undyed Coated Vicryl 2-0 CT-1 18" Suture	Medline	ETHVCP739D	Surgical Disposable
Vital crile-wood needle holder, 10-3/8"	V. Mueller	CH2427	Surgical Instrument
Vital mayo-hegar needle holder, 7-1/4"	V. Mueller	CH2417	Surgical Instrument
Vital metzenbaum dissecting scissors, 14"	V. Mueller	CH2009	Surgical Instrument
Vital metzenbaum dissecting scissors, 9"	V. Mueller	CH2006	Surgical Instrument
Vital ryder needle holder, 9"	V. Mueller	CH2510	Surgical Instrument
Yankauer, Bulb Tip: Sterile Rigid Yankauer with Bulb Tip, No Vent	Medline	DYND50130	Surgical Disposable