CASE #1: AORTOBIFEMORAL BYPASS

Date of admission: 11/10/2010

Date of discharge: 11/15/2010

Pre-op Diagnosis: Aortoiliac occlusive disease with bilateral lower extremity claudication

Post-op Diagnosis: Same as above

Patient History: Patient #1 is a 51 year old male with history of substance abuse, alcohol abuse, and tobacco use who has several year history of bilateral lower extremity pain secondary to aorto-iliac occlusive disease with short distance claudication. He also has history of hypertension, chronic lower back pain, and depression. He developed lower left extremity deep venous thrombosis treated with Coumadin for 3 months. His medications include amlodipine, aspirin, metoprolol, simavastatin, and tramadol. He denies any allergy to medication. ASA 3.

Physical examination and Laboratory findings: The patient is a well developed, mildly malnourished male who appears older that stated age. He has a 1/6 systolic murmur heard best at left sternal border. His lung examination is normal. His airway examination reveals Mallampatti class 1, natural and intact teeth, 3 finger breadth (FB) mouth opening, 3 FB thyrometal distance (TMD), and positive prognath. Patient's myocardial perfusion scan a year earlier indicates a left ventricular ejection fraction (LVEF) of 46% with no wall motion

abnormalities. He has a normal EKG and chest x-ray . His laboratory results are essentially normal with hemoglobin of 15. 4 g/dL. He has a normal basic metabolic panel, INR and PTT. ASA 3.

Anesthesia Management Plan: A general endotracheal anesthesia was chosen, with an epidural for postoperative pain control. Due to the length of the case and the potential for blood loss, one 18 gauge (G) and two 14 G peripheral IV was placed in addition to a 22 G left radial arterial line (A-line). Epidural catheter was placed for post-operative pain control and tested prior to induction.

Summary: Patient was identified and evaluated in the preoperative holding area. Anesthesia plans were discussed, consent obtained, an 18 G peripheral IV placed, and standard American Society of Anesthesiology (ASA) monitors were applied. Patient was moved into the block room and placed in sitting position. L3-L5 was identified and the area was prepped and draped. An epidural catheter was placed per protocol. Briefly, 3 ml of 1% lidocaine was use for skin wheal and infiltration at L3-L4 interspace. An 18 guage Touhey needle was used and epidural space was identified by loss of resistance technique. Epidural catheter was inserted, test dose was negative, and catheter was taped in place. Vancomycin (1g) infusion was started prior to going to the operating room. In the operating room (OR), patient was preoxygenated prior to induction of anesthesia. A smooth IV induction was obtained with midazolam, sufentanil,and propofol. Muscle relaxation was obtained with succinylcholine. Patient was intubated with an 8.0 endotracheal tube (ETT) under direct visual laryngoscope with a MAC 3 blade. An upper body Bair Hugger Blanket and

esophageal temperature probe were used to maintain and monitor patient's temperature. Foley catheter was placed for urine output measurement. Anesthesia was maintained with sevoflurone and sufentanil infusion, and muscle relaxation was obtained with periodical boluses of vecuronium. His vital sign was stable and his fluid balance was maintained with plasmalyte solution and monitored with a flow track. Phenyephrine infusion was used intermittently as needed during the case to optimize patient's blood pressure. Since anticoagulation would be needed during the case, a baseline ACT was obtained. After heparin was administered per surgeon's request, ACT was monitored. Protamine was used to reverse the effect of heparin. During the case that lasted 6.5 hour, patient received a total of 4000 ml of crystalloid, 1000 ml of colloid, and 275 ml of cell saver. Estimated blood loss was 500 ml and urine output was 1500 mlAt the end of the case, muscle relaxant was reversed with a combination of neostigmine and glycopyrolate. Zofran was given for antiemetic. After extubation criteria were met, patient was extubated without complications. His epidural was dosed with 3 ml of 2% lidocaine.

Disposition: Patient was transported to the surgical intensive care unit (SICU) with a Propack, Mapleson and oxygen. Upon arrival at SICU, he was normothermic, and his pain control was adequate. He had a normal post operative course and was discharged home on post-operative day (POD) 7.

CASE #1

NF/SG VHS

ANESTHETIC RECORD

Completed by Teaching Physician

Teaching Physician	Was Present	Personally Performed
Art		✓
CVP with ultrasound		
CVP		
PA Cath		
Regional Anes		✓
TIME OUT		✓ 0830

INDUCTION: [signature] I have performed preop eval, consent & VS ✓ immediately before induction & concur with plan. I was present for induction of anesthesia.

SURGEON: Chang

OPERATIONS: aorto bifem bypass

RESIDENT / CRNA: Arnold

DX: PVD

ALLERGY / REACTION	AGE	PRE-OP BP	P	HCT	WT	PS	PLACE OF SERVICE
NKDA	51	119/82		47	78kg	1 2 (3) 4 5 6 E	ORC

Time	Premedication	Effect	INDUCTION AGENTS / DOSE
	Sufenta 10mcg		Sufenta 10mcg
	Versed 2mg		Propofol 200mg
Antibiotics □ N/A: Vancomycin 1g	Start 845	Stop 945	Redose: Versed 2mg
			Succinylcholine 120mg

AIRWAY

Pre O_2 ✓ ETT Size 7.5
Blade MAC 3 Depth 23@teeth
Grade View III Cuff ↑
Atraumatic___ BS = b/l
Traumatic___ LMA Size___
Bronchoscope___ elective/unplanned
EZ Mask (Y) N
Other +ETCO₂, b/l BS

MONITORING

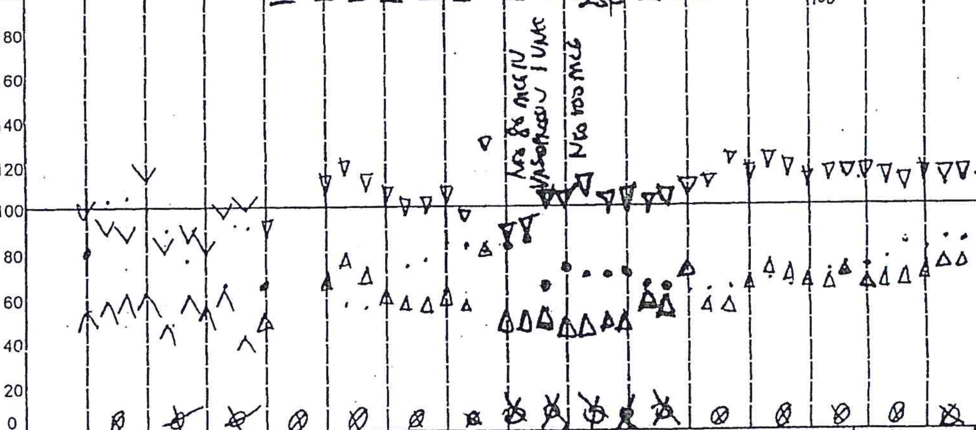
(PRE USE)	STETH	(ACT)
(ECG)	(AIRWAY GASES)	EP
(BPC)	(ART)	TCD
(SpO₂)	CVP	EEG
(TEMP)	PA	TEE
TWITCH	LA	(BIS)

1 – GENERAL, 2 – SPINAL, 3 – EPIDURAL, 4 – NERVE BLOCK, 5 – MAC, 6 – IV ANES

TECH CODES: 1, 3

PROCEDURE CODES: 1 - NO HYPO, 2 - HYPOTHERMIA, 3 - HEMODILUTION, 4 - ARTERIAL LINE, 5 - CVP CATH, 6 - CVP CATH WITH US, 7 - PA CATH, 8 - EP/EEG, 9 - TEE, 10 - ACT, 11 - TCD, 12 - SPINAL DRAIN

	0900	15	30	45	1000	15	30	45	1100	15	30	45	1200	15	30	45
Agents: O_2 (L/MIN)	10	5	5	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
N_2O (L/MIN) Air	0	0	0	1	1	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
ET sevo				0.75	1.10	0.95	0.90	0.85	1.20	1.4	1.5	1.35	1.05	1.05	1.05	1.05
sufenta (mcg/kg/h)					0.2				~~0.15~~							
VEC (mL)									2		3					
Fluids: NS, Neo gtt																
Bispectral Index						44	44	51	42	40	34	41	43	45	45	46
TWITCH																
INS. O_2	100	98	98	56	51	45	40	39	38	38	38	38	39	39	38	37
$ETCO_2$ (TORR)	99	~~98~~	~~98~~	32	35	36	36	38	36	36	37	36	36	36	38	37
(%) O_2 SAT	99	100	100	98	100	100	98	98	97	98	99	99	99	99	99	99
Rhythm	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR
EBL														200		
UOP										25				100		



Left margin: ACT 280, 226 (heparin 2000), 250, 236, 236, 104 (heparin 3000)

Patient Safety: Clinical alarms checked and activated; Arms secured on armboards (L) (R); Arms tucked L R □ Arms < 90 deg; Pressure points checked, padded, monitored; Eyes: ☒ Taped closed □ OpSite □ Other; Prone: ☒ No pressure on orbits, nose, ears, genitals

TRANSFER OF CARE RESIDENT / CRNA: 1110-1125 [signature] (Time) Signature

(Time) Signature

ATTENDING PHYSICIAN
(Time) Signature
(Time) Signature

EMERGENCE / PARTICIPATION: [signature] Signature

START BLOCK: 840
END BLOCK: 855
START ANES: 907
START SURG: 930
INCIS: 1010
END SURG: 1555
END ANES: 1615

RESP: Spon ○ Cont ○

EVENT #: 35.3, 35.4, 35.5, 35.4, 35.6, 35.7, 36, 36.1, 35.9, 36.1, 36, 36.1

TEMP. 1154 heparin 3000 units

CVP 1210 heparin 3000 units

PA x-clamp @ 1209

VT/R/PIP 550/8/23/5 →

EVENTS, Rx, PT, POSITION, ETC.
MSMAIDS, pt seen in preop, chart reviewed, pt seated, T10 identified c̄ landmarks, prepped c̄ chlorhexidine 18g Tuohy to LOR (@ 8cm), catheter threads easily, ⊖CSF ⊖heme, ⊖paresthesias, ⊖test dose, catheter secured @ 12cm. to OR c̄ ASA monitors, VS ✓'d, SIVI, DL × 1, views above, glottic opening noted to deeper than expected, tube placement confirmed, secured, eyes lubricated, taped, 2 - 14g PIV started, 22g L radial A-line
breathing spontaneously, suctioned, extubated c̄ PPV, to CTICU, report to RN, CCM SpO₂ 98 BP 111/79 P117 RR12 T 36.7

FIO₂	pH / PCO₂	PO₂ / SAT	HCO₃ / BE	Hgb / HCT	LA / Ca++	Na+ / K+	Glu	PT / PTT	ACT
50	36								111

Patient Name: Name:
SSN:
SS#: DOB:

Date 11 / 10 / 10 Page 1 / 2

NF/SG VHS

ANESTHETIC RECORD

INDUCTION	SURGEON	Completed by Teaching Physician		
I have performed preop eval, consent & VS ✓ immediately before induction & concur with plan. I was present for induction of anesthesia.	OPERATIONS	Teaching Physician	Was Present	Personally Performed
RESIDENT / CRNA Arnoll	DX	Art		
		CVP with ultrasound		
		CVP		
		PA Cath		
		Regional Anes		
		TIME OUT	✓	

ALLERGY / REACTION	AGE	PRE-OP BP	P	HCT	WT	PS 1 2 3 4 5 6 E	PLACE OF SERVICE

Time	Premedication	Effect	INDUCTION AGENTS / DOSE
			PAGE 1

Antibiotics ☐ N/A	Start	Stop	Redose

AIRWAY

Pre O_2 ✓ — ETT Size ____
Blade MAC 3 — Depth ____
Grade View III — Cuff ____
Atraumatic ____ — BS = ____
Traumatic ____ — LMA Size ____
Bronchoscope ____ elective/unplanned
EZ Mask (Y) N
Other ____

MONITORING

PRE USE	STETH	ACT
ECG	AIRWAY GASES	EP
BPC	ART	TCD
SpO_2	CVP	EEG
TEMP	PA	TEE
TWITCH	LA	BIS

1 – GENERAL
2 – SPINAL
3 – EPIDURAL
4 – NERVE BLOCK
5 – MAC
6 – IV ANES

TECH. CODES

PROCEDURE CODES
1 – IND HYPO
2 – HYPOTHERMIA
3 – HEMODILUTION
4 – ARTERIAL LINE
5 – CVP CATH
6 – CVP CATH WITH US
7 – PA CATH
8 – EP / EEG
9 – TEE
10 – ACT
11 – TCD
12 – SPINAL DRAIN

Agents	(13)	15	30	45	(14)	15	30	45	(15)	15	30	45	(16)	15	30	45
O_2 (L/MIN)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5					
air ~~N_2O~~ (L/MIN)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.5	0.5					
ET SEVO	1.05	1.05	1.05	1.05	0.85	0.75	0.75	0.75	0.60	0.60	0.55					
sufenta 0.2													100mg			
phenylephrine																
Fluids XL																
propofol (mcg/kg/min)				40 epidural												
Bispectral Index	45	44	45	47	48	43	37	48	36	54	49					
TWITCH									1/4	4/4						
INS. O_2	38	38	38	38	39	38	38	38	38	34			XL 4L			
$ETCO_2$ (TORR)	37	38	38	37	38	38	39	40	39	36			Hespan 1L			
(%) O_2 SAT	99	99	99	99	100	100	100	100	100	100			cell saver 295			
Rhythm	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR						
EBL													500			
UOP													1500			

Patient Safety
Clinical alarms checked and activated
Arms secured on armboards L R
Arms tucked L R ☐ Arms < 90 deg
Pressure points checked, padded, monitored
Eyes: ☐ Taped closed ☐ OpSite ☐ Other
Prone: ☐ No pressure on orbits, nose, ears, genitals

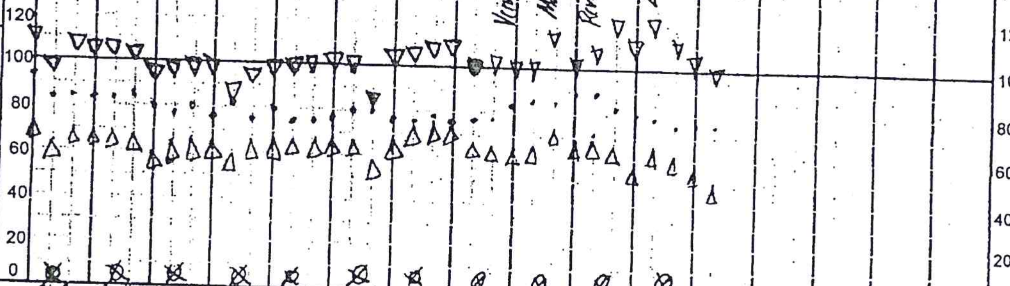
TRANSFER OF CARE RESIDENT / CRNA
(Time) Signature
(Time) Signature

ATTENDING PHYSICIAN
(Time) Signature
(Time) Signature

EMERGENCE / PARTICIPATION
Signature

START BLOCK:
END BLOCK:
START ANES:
START SURG:
INCIS:
END SURG:
END ANES:
RESP Spon Cont 8

Vecuronium 2mg
Morphine 2mg
Reversal 5mg/0.6mg
Zofran 4mg



EVENT #

TEMP.	36.3	36.4	36.4	36.5	36.6	36.4	36.7	36.8	36.9	37	37.2

CVP 1527 epidural bolus
3mL 2% Lidocaine
PA
VT/R/PIP
EVENTS, Rx, PT, POSITION, ETC.

Patient Name Name :
SS#: SSN :
DOB :

FIO2	pH / PCO2	PO2 / SAT	HCO3 / BE	Hgb / HCT	LA / Ca++	Na+ / K+	Glu	PT / PTT

Date 11 / 10 / 10 Page 2 / 2