

Aspects of perioperative management and outcomes of flap surgery at Charlotte Maxeke Johannesburg Academic Hospital

Supplementary tables

Supplementary Table I: Perioperative factors

Perioperative factors		n (%) / mean (SD) / median (IQR)
Type of anaesthesia	TIVA	4 (4.7)
	Volatile	82 (95.3)
Analgesics used	Opioids	17 (19.8)
	Opioids and ketamine	20 (23.2)
	Opioids and Perfolgan	30 (34.9)
	Opioids, ketamine, and Perfolgan	16 (18.6)
	Opioids, ketamine, Perfolgan, and NSAIDs	3 (3.5)
Duration of surgery (hours)	< 6	22 (25.3)
	6–10	44 (50.6)
	> 10	21 (24.1)
Flap ischaemia time (minutes)	Median (IQR)	79 (70–106)
Experience of surgeon (years)	< 2	39 (52.0)
	2–5	33 (44.0)
	6–10	1 (1.3)
	> 10	2 (2.7)
Fluid resuscitation (litres)	0–6	84 (100)
	> 7	0 (0.0)
Fluid type and volume	Crystalloids	76 (88.4)
	Colloids	0 (0.0)
	Both	10 (11.6)
Colloids volume (if fluid had colloids)	500 ml	8 (80.0)
	1 L	2 (20.0)
Crystalloid volume (litres)	1–1.99	15 (18.3)
	2–2.99	34 (41.5)
	3–3.99	23 (28.0)
	4–4.99	7 (8.5)
	5–5.99	3 (3.7)
Blood product use	Yes	19 (22.1)
	No	67 (77.9)
Blood products (if using blood products)	PRC units	18 (94.7)
	PRC units, FFP units	1 (5.3)
	Platelets units	
Regional block	Yes	5 (5.8)
	No	81 (94.2)
Type of regional block (only for regional block use)	Supraclavicular block	1 (20.0)
	Femoral nerve block	1 (20.0)
	PEC I and II blocks	1 (20.0)
	TAP block	1 (20.0)
	Wrist block	1 (20.0)
Lowest temperature	Median (IQR)	35.5 (35.3–36.0)
Estimated lowest systolic BP	Mean (SD)	92.2 (9.0)

Estimated lowest diastolic BP	Mean (SD)	48.5 (5.4)
Use of vasopressors	Yes	49 (57.0)
Type of vasopressor (used vasopressors)		
Adrenaline	Yes	6 (12.2)
Dobutamine	Yes	2 (4.1)
Ephedrine	Yes	29 (59.2)
Phenylephrine	Yes	26 (53.1)
Method of vasopressor administration		
	Bolus	44 (89.8)
	Infusion	3 (6.1)
	Bolus and infusion	2 (4.1)
Postoperative Hb	Median (IQR)	11.1 (9.9–12.3)
Postoperative anticoagulants used	Yes	87 (100)
Flap outcome		
	Survival	74 (85.1)
	Failure	13 (14.9)
Reasons for flap failure (only with flap failure)		
	Excessive swelling	1 (7.7)
	Haematoma	1 (7.7)
	Infection	5 (38.5)
	Poor wound healing	5 (38.5)
	Poor wound healing and haematoma	1 (7.7)

BP – blood pressure, FFP – fresh frozen plasma, Hb – haemoglobin, IQR – interquartile range, NSAIDs – nonsteroidal anti-inflammatory drugs, PEC – pectoral, SD – standard deviation, TAP – transversus abdominis plane, TIVA – total intravenous anaesthesia, PRC – packed red cells

Supplementary Table II: Relationship between flap outcome and perioperative factors

Perioperative factors		Flap failure	Flap survival	p-value
Type of anaesthesia	TIVA	0 (0.0)	4 (100)	0.41
	Volatile	12 (14.6)	70 (85.4)	
Analgesics used	Opioids	2 (11.8)	15 (88.2)	0.66
	Opioids and ketamine	4 (20.0)	16 (80.0)	
	Opioids and Perfolgan	4 (13.3)	26 (86.7)	
	Opioids, ketamine, and Perfolgan	1 (6.2)	15 (93.8)	
	Opioids, ketamine, Perfolgan, and NSAIDs	1 (33.3)	2 (66.7)	
Duration of surgery (hours)	< 6	2 (9.1)	20 (90.9)	0.62
	6–10	8 (18.2)	36 (81.8)	
	> 10	3 (14.3)	18 (85.7)	
Experience of surgeon (yrs)	< 2	7 (17.9)	32 (82.1)	0.64
	2–5	3 (9.1)	30 (90.9)	
	6–10	0 (0.0)	1 (100)	
	> 10	0 (0.0)	2 (100)	
Fluid type and volume	Crystalloids	10 (13.2)	66 (86.8)	0.56
	Crystalloids and colloids	2 (20.0)	8 (80.0)	
Colloid	500 ml	2 (25.0)	6 (75.0)	1.00
	> 500 ml	0 (0.0)	2 (100)	
Crystalloid volume (litres)	1–1.99	3 (20.0)	12 (80.0)	0.69
	2–2.99	3 (8.8)	31 (91.2)	
	3–3.99	4 (17.4)	19 (82.6)	
	4–4.99	1 (14.3)	6 (85.7)	
	5–5.99	1 (33.3)	2 (66.7)	
Blood product use	Yes	2 (10.5)	17 (89.5)	0.63
	No	10 (14.9)	57 (85.1)	
Blood products	PRC units	2 (11.1)	16 (88.9)	0.73
	PRC units, FFP units	0 (0.0)	1 (100)	
Regional block	Yes	1 (20.0)	4 (80.0)	0.69

Lowest temperature	Median (IQR)	35.4 (35.3–35.7)	35.5 (35.3–36.0)	0.49
Estimated lowest systolic BP	Mean (SD)	92.1 (10.1)	92.3 (8.8)	0.95
Estimated lowest diastolic BP	Mean (SD)	47.9 (4.5)	48.6 (5.5)	0.68
Use of vasopressors	Yes	6 (12.2)	43 (87.8)	0.60
Method of vasopressor administration	Bolus	5 (11.4)	39 (88.6)	0.26
	Infusion	0 (0.0)	3 (100)	
	Bolus and infusion	1 (50.0)	1 (50.0)	
Postoperative Hb	Median (IQR)	10.9 (9.1–11.5)	11.1 (10.0–12.3)	0.24

BP – blood pressure, FFP – fresh frozen plasma, Hb – haemoglobin, IQR – interquartile range, NSAIDs – nonsteroidal anti-inflammatory drugs, SD – standard deviation, TIVA – total intravenous anaesthesia, PRC – packed red cells