

Supplementary Materials

Minimally invasive left pancreatectomy for pancreatic ductal adenocarcinoma: review of the current literature

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Supplementary Table 1. Additional preoperative data

Author	Procedure	Age	P-value	BMI	P-value	ASA score > 2	P-value	Neoadjuvant therapy	P-value
Retrospective Studies									
Anderson	MIS 505 Open 1302	69 (62-77) 68 (60-75)	<0.001	N.A.	\	N.A.	\	N.A.	\
Chopra	MIS 115 Open 41	N.A.	\	N.A.	\	86% 93%	0.757	44% 44%	0.184
Hao	LAP 41 Open 46	58.6 ± 11.5 58.7 ± 10.5	0.810	21.8 ± 2.4 22.0 ± 2.4	0.980	N.A.	\	N.A.	\
Huang	LAP 20 Open 31	67.2 ± 8.4 66.9 ± 9.1	0.917	23.4 ± 2.5 22.5 ± 2.0	0.267	5% 3%	0.803	N.A.	\
Hu	LAP 11 Open23	53.1 ± 13.2 49.1 ± 9.5	0.169	23.9 ± 4.2 25.6 ± 4.0	0.881	N.A.	\	N.A.	\
Hirashita	LAP 19 Open 31	73.8 ± 8.1 71.4 ± 9.1	0.358	23.8 ± 7.4 22.9 ± 3.4	0.562	N.A.	\	N.A.	\
Kantor	MIS 349 Open 1205	66.7 ± 10.8 66.0 ± 10.9	0.710	N.A.	\	N.A.	\	N.A.	\
Kooby	LAP 23 Open 189	65.1 ± 12.3 65.5 ± 11.3	0.890	28.5 ± 5.7 26.2 ± 6.0	0.380	N.A.	\	N.A.	\
Magge	MIS 28 Open 34	67 ± 2.2 66 ± 2.0	0.820	26.7 ± 1.3 26.5 ± 0.7	0.290	N.A.	\	N.A.	\

Sharpe	LAP 144 Open 625	67.7 ± 10.1 65.6 ± 10.5	0.270	N.A.	\	N.A.	\	2% 11%	<0.001
Sulpice	LAP 347 Open 2406	60.6 ± 14.7 64.5 ± 12.0	<0.001	N.A.	\	N.A.	\	N.A.	\
Zhang	LAP 25 Open 23	64.72 ± 9.11 63.26 ± 8.74	0.605	22.29 ± 2.87 23.54 ± 3.10	0.155	4% 0%	1.000	N.A.	\
Zhang	LAP 22 Open 76	55.2 ± 13.1 59.8 ± 9.0	0.150	23.9 ± 2.7 23.7 ± 3.3	0.680	9% 8%	0.360	N.A.	\
Zhang	LAP 17 Open 34	60 (44–75) 64 (40–76)	0.164	23.4 (18.7–27.6) 23.7 (19.0–28.7)	0.313	0% 0%	\	N.A.	\
Prospective Studies									
Bauman	LAP 33 Open 46	66 ± 2.0 66 ± 2.0	0.950	26.2 ± 0.8 27.8 ± 0.9	0.180	N.A.	\	0% 35%	0.002
Plotkin	MIS 166 Open 355	69 ± 0.8 65 ± 0.6	0.001	26.1 ± 0.9 26.5 ± 0.6	0.707	82% 77%	0.084	11% 39%	<0.001
Shin	LAP 70 Open 80	61 (39–86) 65 (45–81)	0.030	24.1 (17.4–30.2) 23.1 (15.3–28.5)	0.009	7% 15%	0.230	N.A.	\
Stauffer	LAP 44 Open 28	72 (55–90) 67.3 (44–85)	0.053	28.3 (17–63) 26.1 (17–43)	0.212	N.A.	\	N.A.	\
Propensity Score Matching Studies									
Balduzzi	LAP 44 Open 44	69 ± 9.0 67 ± 8.0	0.186	25.0 ± 4.0 25.0 ± 4.0	0.822	29% 32%	0.831	0% 0%	\

Chen	LDP 66	62.9 ± 8.3	0.930	22.5 ± 2.6	0.370	3%	1.000	6%	0.370
	Open 66	62.9 ± 8.7		22.1 ± 2.4		3%		9%	
Chen	LAP 86	62.7 ± 8.7	0.900	22.5 ± 2.5	0.530	3%	1.000	N.A.	\
	Open 86	62.9 ± 8.8		22.3 ± 2.3		3%			
Kwon	MIS 156	63.3 ± 10.3	0.066	23.0 ± 2.7	0.035	4%	0.108	N.A.	\
	Open 156	63.9 ± 9.5		23.1 ± 2.5		6%			
Lee	MIS 10	63.3 ± 9.9	0.855	24.2 ± 3.5	0.366	N.A.	\	N.A.	\
	Open 40	62.7 ± 9.1		23.2 ± 2.8					
Lee	LAP 35	65.7 ± 11.2	0.814	23.2 ± 3.3	0.538	9%	0.983	N.A.	\
	Open 105	66.2 ± 9.7		22.8 ± 3.1		8%			
Raooof	LAP 563	N.A.	\	N.A.	\	N.A.	\	5%	0.982
	Open 563							5%	
Van Hilst	MIS 340	68 ± 10.0	0.851	25 (23–28)	0.800	30%	0.497	4%	0.143
	Open 340	68 ± 10.0		25 (22–28)		27%		7%	
Watson	MIS 805	N.A.	\	N.A.	\	N.A.	\	16%	0.696
	Open 805							17%	
Weng	RDP 170	63.27 ± 9.15	0.252	N.A.	\	N.A.	\	N.A.	\
	Open 166	62.47 ± 8.92							

Supplementary Table 2. Additional introperative data

Author	Procedure	Vascular Resection	P-value	Additional resection	P-value	Conversion Rate	P-value
Retrospective Studies							
Anderson	MIS 505 Open 1302	N.A.	\	N.A.	\	N.A.	\
Chopra	MIS 115 Open 41	6% 24%	0.004	N.A.	\	6%	\
Hao	LAP 41 Open 46	N.A.	\	N.A.	\	N.A.	\
Huang	LAP 20 Open 31	N.A.	\	N.A.	\	N.A.	\
Hu	LAP 11 Open23	N.A.	\	N.A.	\	0%	\
Hirashita	LAP 19 Open 31	N.A.	\	N.A.	\	N.A.	\
Kantor	MIS 349 Open 1205	N.A.	\	N.A.	\	N.A.	\
Kooby	LAP 23 Open 189	N.A.	\	N.A.	\	17%	\
Magge	MIS 28 Open 34	N.A.	\	N.A.	\	18%	\

Sharpe	LAP 144 Open 625	N.A.	\	N.A.	\	28%	\
Sulpice	LAP 347 Open 2406	0.6% 4%	0.006	8% 26%	<0.001	N.A.	\
Zhang	LAP 25 Open 23	N.A.	\	N.A.	\	N.A.	\
Zhang	LAP 22 Open 76	N.A.	\	N.A.	\	N.A.	\
Zhang	LAP 17 Open 34	0% 3%	0.792	29% 21%	0.792	12%	\
Prospective Studies							
Bauman	LAP 33 Open 46	N.A.	\	N.A.	\	3%	\
Plotkin	MIS 166 Open 355	N.A.	\	N.A.	\	23%	\
Shin	LAP 70 Open 80	N.A.	\	9% 21%	0.030	N.A.	\
Stauffer	LAP 44 Open 28	7% 7%	1.000	39% 32%	0.622	11%	\
Propensity Score Matching Studies							
Balduzzi	LAP 44 Open 44	21% 25%	0.611	77% 68%	0.338	35%	\

Chen	LDP 66 Open 66	N.A.	\	11% 11%	1.000	3%	\
Chen	LAP 86 Open 86	N.A.	\	N.A.	\	10%	\
Kwon	MIS 156 Open 156	N.A.	\	19% 21%	0.032	N.A.	\
Lee	MIS 10 Open 40	N.A.	\	N.A.	\	N.A.	\
Lee	LAP 35 Open 105	N.A.	\	6% 15%	0.242	6%	\
Raooof	LAP 563 Open 563	N.A.	\	N.A.	\	27%	\
Van Hilst	MIS 340 Open 340	6% 11%	0.012	11% 12%	0.901	19%	\
Watson	MIS 805 Open 805	N.A.	\	N.A.	\	40%	\
Weng	RDP 170 Open 166	N.A.	\	N.A.	\	N.A.	\

Supplementary Table 3. Additional postoperative data

Author	Procedure	CR-POPF	P-value	PPH	P-value	DGE	P-value	Reoperation rate	P-value
Retrospective Studies									
Anderson	MIS 505 Open 1302	N.A.	\	N.A.	\	N.A.	\	N.A.	\
Chopra	MIS 115 Open 41	10% 10%	0.563	3% 2%	0.690	3% 10%	0.179	5% 7%	0.032
Hao	LAP 41 Open 46	6% 5%	0.710	8% 7%	0.700	11% 11%	0.990	3% 2%	0.890
Huang	LAP 20 Open 31	45% 32%	0.147	N.A.	\	15% 0%	0.107	N.A.	\
Hu	LAP 11 Open23	0% 0%	\	0% 0%	\	0% 0%	\	0% 0%	\
Hirashita	LAP 19 Open 31	11% 19%	0.397	N.A.	\	5% 10%	0.569	N.A.	\
Kantor	MIS 349 Open 1205	N.A.	\	N.A.	\	N.A.	\	N.A.	\
Kooby	LAP 23 Open 189	N.A.	\	N.A.	\	N.A.	\	N.A.	\
Magge	MIS 28 Open 34	4% 9%	0.570	N.A.	\	N.A.	\	N.A.	\

Sharpe	LAP 144 Open 625	N.A.	\	N.A.	\	N.A.	\	N.A.	\
Sulpice	LAP 347 Open 2406	N.A.	\	N.A.	\	N.A.	\	N.A.	\
Zhang	LAP 25 Open 23	8% 0%	0.490	4% 0%	1.000	8% 9%	1.000	11.7 ± 5.2 12.9 ± 5.0	0.425
Zhang	LAP 22 Open 76	9% 9%	0.620	0% 4%	0.340	N.A.	\	N.A.	\
Zhang	LAP 17 Open 34	18% 29%	0.484	N.A.	\	N.A.	\	N.A.	\
Prospective Studies									
Bauman	LAP 33 Open 46	9% 15%	0.420	N.A.	\	N.A.	\	3% 11%	0.300
Plotkin	MIS 166 Open 355	12% 19%	0.073	N.A.	\	3% 7%	0.140	N.A.	\
Shin	LAP 70 Open 80	12% 4%	0.110	N.A.	\	N.A.	\	N.A.	\
Stauffer	LAP 44 Open 28	11% 7%	0.470	2% 0%	1.000	N.A.	\	2% 4%	1.000
Propensity Score Matching Studies									
Balduzzi	LAP 44 Open 44	16% 30%	0.127	9% 2%	0.167	0% 16%	0.006	N.A.	\

Chen	LDP 66	6%	0.510	0%	0.250	0%	0.250	0%	1.000
	Open 66	9%		3%		3%		0%	
Chen	LAP 86	6%	NS	0%	NS	0%	NS	0%	1.000
	Open 86	8%		2%		3%		0%	
Kwon	MIS 156	10%	0.560	N.A.	\	N.A.	\	N.A.	\
	Open 156	8%							
Lee	MIS 10	0%	0.654	0%	0.448	10%	0.622	N.A.	\
	Open 40	5%		3%		3%			
Lee	LAP 35	3%	0.679	235.0 ± 240.0	0.718	11%	0.782	11.1 ± 6.7	0.026
	Open 105	7%		252.0 ± 229.0		15%		14.4 ± 7.7	
Raof	LAP 563	N.A.	\	N.A.	\	N.A.	\	N.A.	\
	Open 563								
Van Hilst	MIS 340	19%	0.921	5%	1.000	3%	0.108	N.A.	\
	Open 340	20%		5%		5%			
Watson	MIS 805	N.A.	\	N.A.	\	N.A.	\	N.A.	\
	Open 805								
Weng	RDP 170	23%	0.238	4%	0.585	10%	0.352	4%	0.811
	Open 166	15%		3%		13%		4%	