



Figure S1 The flow diagram for participants recruited.

Table S1 The pathological diagnosis and surgery for each patient

Patient	Diagnosis	Surgery	Resection line	Average daily extra insulin (IU)
1	PDAC	DP	Above PV	3.80
2	PDAC	PD	Above PV	2.00
3	IPMN	PD	Above PV	0
4	PDAC	TP	N/A	20.09
5	periampullary cancer	PD	Above PV	0
6	PDAC	DP	Above PV	2.44
7	PDAC	DP	Above PV	0.57
8	multiple myeloma	PD	Above PV	0.57
9	PDAC	DP	Above PV	0
10	PDAC	PD	Above PV	1.14
11	SCN	DP	3 cm left to PV	2.00
12	PDAC	TP	N/A	37.10
13	PDAC	Palliative gastrojejunostomy and cholangiojejunostomy	N/A	0
14	PDAC	PD	Above PV	0.86
15	PDAC	Palliative gastrojejunostomy	N/A	0
16	PDAC	PD	Above PV	2.17
17	PDAC	“Open-close” laparotomy with biopsy for metastatic lesions on peritoneum	N/A	0.31
18	PDAC	PD	Above PV	0.86

PDAC, pancreatic ductal adenocarcinoma; IPMN, intraductal papillary mucinous neoplasm; SCN, serous cystic neoplasm; PD, pancreaticoduodenectomy; DP, distal pancreatectomy; TP, total pancreatectomy; PV, portal vein; N/A, not applicable; IU, international units.

Table S2 Results of pairwise comparison of postoperative glycemic variability different groups

	Mean glucose value	CV of mean glucose
CTRL vs. PD	<0.001	0.009
CTRL vs. DP	<0.001	0.030
CTRL vs. TP	<0.001	<0.001
TP vs. PD	<0.001	<0.001
TP vs. DP	<0.001	<0.001
PD vs. DP	0.980	<0.001

CTRL, control group; PD, pancreaticoduodenectomy; DP, distal pancreatectomy; TP, total pancreatectomy.

Table S3 Results of pairwise comparison of the distribution of postoperative glucose value between different groups

	Time above range	Time below range
CTRL vs. PD	<0.001	<0.001
CTRL vs. DP	<0.001	<0.001
CTRL vs. TP	<0.001	<0.001
TP vs. PD	<0.001	<0.001
TP vs. DP	<0.001	<0.001
PD vs. DP	0.012	<0.001

CTRL, control group; PD, pancreaticoduodenectomy; DP, distal pancreatectomy; TP, total pancreatectomy.

Table S4 The potential effect of post-operative complication (POPF) on patients' glycemic status in PD and DP

	With POPF (n=7)	Without POPF (n=6)	P value
Mean glucose value	5.77±1.98	6.68±2.24	<0.001
CV of mean glucose	0.3427	0.3354	0.138
CONGA, 2	1.69±0.35	1.88±0.40	0.705
MODD	0.38±0.05	0.42±0.08	0.353

POPF included all levels of POPF: biochemic leak, grade B, and grade C. POPF, post-operative pancreatic fistula; PD, pancreaticoduodenectomy; DP, distal pancreatectomy; CV, coefficient of variation; CONGA, continuous overall net glycemic action; MODD, mean of daily difference.

Table S5 The potential effect of post-operative complication (major complications) on patients' glycemic status in PD and DP

	With complications (n=4)	Without complications (n=9)	P value
Mean glucose value	6.03±2.50	6.17±1.96	<0.001
CV of mean glucose	0.4151	0.3175	<0.001
CONGA, 2	1.78±0.54	1.78±0.31	0.179
MODD	0.42±0.10	0.40±0.06	0.212

Major complications were defined as clinical relevant post-operative pancreatic fistula (CR-POPF), all grades of delayed gastric empty (DGE), all grades of post-pancreatectomy hemorrhage (PPH), all grades of surgical site infection (SSI), and all other Clavien-Dindo ≥3 events. PD, pancreaticoduodenectomy; DP, distal pancreatectomy; CV, coefficient of variation; CONGA, continuous overall net glycemic action; MODD, mean of daily difference.

Table S6 The difference of mean glucose level (mmol/L) within and after 5 days in each group

	First 5 days	After 5 days	P value
PD	6.67±2.07	5.71±2.24	<0.001
DP	6.28±2.09	6.02±1.94	<0.001
TP	8.02±3.21	8.60±4.13	<0.001

PD, pancreaticoduodenectomy; DP, distal pancreatectomy; TP, total pancreatectomy.