

Supplementary Table 1 Plasma and wound fluid protein levels of benign group

Plasma protein	PreOp	POD1		POD3		POD7-13		POD 14-20	
	Plasma	Plasma	Wound FL	Plasma	Wound FL	Plasma	Wound FL	Plasma	Wound FL
n	31	26	30	23	28	16	14	6	4
ANG2 (pg/ml)	2027	2682	7103	2876	19029	2914	37160	3674	23337
CI	5.3	4.4	5.0	0.1	7.2	3.7	5.3	6-7	5-8
VEGF(pg/ml)	49.20	107.8	919.8	79.51	1991	90.28	5704	106.6	5014
CI	33.5-63.1	69.3-156.4	687.1-1368.8	55.9-131.0	1403.1-2837.1	56.2-162.8	2926.7-12314.0	130.38-30.76	3557.53-9359.88
MMP2(ng/ml)	162.4	183.6	366.0	217.3	537.4	203.3	1172	204.2	1003

CHI3L1(ng/ ml)	42.17 32.8-60.3	627.0 305.9-792.3	745.1 693.8-1186.7	128.6 52.7-191.9	801.4 602.7-1518.2	113.2 55.3-225.6	1066 529.6-2357.0	152.9 43.85- 420.04	681.7 331.94- 1908.53
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CI

ANG2: Angiopoetin-2; VEGF: Vascular endothelial growth factor; MMP2: Matrix metalloproteinase-2; PLGF: Placental growth factor; MMP3: Matrix metalloproteinase-3; OPN: Osteopontin; MCP-1: Monocyte chemotactic protein-1; CHI3L1: Chitinase 3 like protein-1; POD: Post-operative day. values reported as median and 95% CI.

Supplementary table 2: Plasma and wound fluid protein levels of malignant group; values reported as median and 95% CI
[ANG2: angiopoetin-2; VEGF: vascular endothelial growth factor; MMP2:matrix metalloproteinase-2;PLGF:placental growth factor;
MMP3: matrix metalloproteinase-3 ;OPN: osteopontin; MCP-1: monocyte chemotactic protein-1; CHI3L1: chitinase 3 like
protein-1]

Plasma protein	PreOp	POD1		POD3		POD7-13		POD 14-20	
	Plasma	Plasma	Wound FL	Plasma	Wound FL	Plasma	Wound FL	Plasma	Wound FL
n	35	35	33	28	29	17	20	7	8
ANG2(pg/ml)	2082	3400	9131	3083	18693	3341	39259	5053	15121
C	1809.13-	2652.79-	6643.2-	2530.72-	16521.9-	2556.76-	24793.25-	2715.56-	10704.65-
I	2710.32	4249.99	13102.8	4295.825	23793.2	5209.67	73975.45	6893.735	45387.85
VEGF(pg/ml)	50.18	107.9	1130	96.20	2303	119.1	7390	67.57	5056
C I	37.60-	67.82-	781.47-	66.17-	919.61-	92.15-	3137.29-	26.90-	376.77-
	61.18	136.24	2426.57	148.41	4998.38	164.6	12169.99	164.80	35290.52
MMP2(ng/ml)	173.9	208.2	449.8	240.3	751.4	236.8	1141	268.1	1307
C I	152.3-	189.28-	338.4-	212.02-	632.4-	185.64-	936.4-	155.38-	420.6-

	200.6	233.78	615.6	274.1	901.2	271.48	1323	432.46	1796.6
PLGF(pg/ml)	14.75	21.14	135.2	18.13	792.9	20.75	713.2	18.89	413.9
C I	12.84-	18.91-	102.42-	16.16-	308.3-	18.85-	420.1-	15.33-	101.89-
	16.69	23.77	190.2	20.87	2036.33	26.28	1359.16	24.73	1074.67
MMP3(ng/ml)	10.09	12.84	66.80	24.39	99.00	20.28	63.00	27.38	88.20
C I	8.19-	11.1-	31.8-	16.91-	65.4-	11.22-	106.8-	10.58-	19.2-
	12.99	19.51	103.7	34.01	284.6	32.87	26.8	38.26	743.4
OPN(ng/ml)	64.88	130.5	451.3	133.6	2105	137.1	2614	193.4	2301
C I	57.75-	124.72-	318-	112.77-	1317.75-	115.15-	1387.25-	497.7-	1554.25-
	71.92	196.0	646	169.92	2470.5	175.15	3466.5	106.35	3643
MCP1(pg/ml)	223.2	389.1	13871	340.9	10699	327.6	21824	337.0	20265
C I	207.01	298.89-	9203.08-	273.17-	4989.82-	250.05-	11587.22-	231.672-	2190.52-
	254.33	460.48	20606.78	431.45	18568.14	501.91	32119.24	578.37	49461.36
CHI3L1(ng/ml)	51.09	668.9	1026	156.5	809.4	113.0	1279	341.3	1335
C I	31.73-	607.46-	604.43-	96.80-	476.63-	87.56-	766.84-	49.33-	281.58-
	65.91	756.19	1269.14	308.26	1160.16	398.88	1830.48	573.38	6708.51

Supplementary Table 3 Statistical Comparison of Subcutaneous (SQ) vs Pelvic (PL) Wound fluid

[ANG2: angiopoetin-2; VEGF: vascular endothelial growth factor; MMP2:matrix metalloproteinase-2;PLGF:placental growth factor; MMP3: matrix metalloproteinase-3 ;OPN: osteopontin; MCP-1: monocyte chemotactic protein-1; CHI3L1: chitinase 3 like protein-1]

	POD1(SQ) vs POD1(PL) (<i>p</i>)	POD1(SQ) vs POD1(PL) (<i>p</i>)	POD3 (SQ) vs POD3 (PL) (<i>p</i>)	POD3 (SQ) vs POD3 (PL) (<i>p</i>)	POD7-13 (SQ) vs POD7-13 (PL) (<i>p</i>)	POD7-13 (SQ) vs POD7-13 (PL) (<i>p</i>)
	Benign	Malignant	Benign	Malignant	Benign	Malignant
Subcutaneous (n)	23	11	21	9	10	7
Pelvic (n)	10	25	9	22	6	15
ANG-2	0.002	0.416	0.929	0.949	0.181	0.001
VEGF	0.658	0.456	0.594	0.273	0.713	0.680
MMP-2	0.062	0.261	0.003	0.026	0.016	0.267
PLGF	0.193	0.151	0.178	0.273	0.031	0.004

MMP-3	0.105	0.207	0.965	0.236	0.958	0.368
OPN	0.954	0.195	0.178	0.480	0.368	0.407
MCP-1	0.499	0.416	0.050	0.313	0.958	0.032
CHI3L1	0.658	0.342	0.397	0.198	0.562	0.046

Supplementary Table 4 Plasma (PLS) vs wound fluid (WFL) protein level comparisons benign group (Pelvic and Subcutaneous (SQ) sub groups)

[ANG2: angiopoetin-2; VEGF: vascular endothelial growth factor; MMP2:matrix metalloproteinase-2;PLGF:placental growth factor; MMP3: matrix metalloproteinase-3 ;OPN: osteopontin; MCP-1: monocyte chemotactic protein-1; CHI3L1: chitinase 3 like protein-1]

Benign	Plasma	Plasma	Plasma	Plasma	Plasma	WFL	WFL	WFL	WFL
n	Po	Pod1	Pod3	Pod7-13	Pod14-20	POD1	POD3	POD7-13	POD14-20
SQ	23	20	18	10	4	23	21	10	2
Pelvic	11	9	8	8	3	10	9	6	2

	PLS POD1 vs WFL POD1(<i>p</i>)	PLS POD1 vs WFL POD1(<i>p</i>)	PLS POD 3 vs WFL POD3(<i>p</i>)	PLS POD3 vs WFL POD3(<i>p</i>)	PLS POD 7-13 vs WFL POD7-13 (<i>p</i>)	PLS POD 7-13 vs WFL POD 7-13 (<i>p</i>)	PLS POD 14-20 vs WFL POD 14-20(<i>p</i>)	PLS POD 14-20 vs WFL POD 14-20(<i>p</i>)
	SQ	Pelvic	SQ	Pelvic	SQ	Pelvic	SQ	Pelvic
Ang-2	<0.001	<0.001	<0.001	0.001	<0.001	0.001	0.133	0.200

VEGF	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.133	0.200
MMP-2	<0.001	0.001	<0.001	<0.001	<0.001	0.001	0.133	0.200
PLGF	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.133	0.200
MMP-3	0.05	0.001	<0.001	0.006	<0.001	0.180	0.133	0.200
OPN	<0.001	0.004	<0.001	<0.001	<0.001	0.020	0.133	0.200
MCP1	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.133	0.200
CHI3L1	0.05	0.278	<0.001	<0.001	<0.001	0.001	0.133	0.200

Supplementary Table 5 Plasma (PLS) vs wound fluid (WFL) protein level comparisons malignant group (Pelvic and Subcutaneous (SQ) sub groups)

[ANG2: angiopoetin-2; VEGF: vascular endothelial growth factor; MMP2:matrix metalloproteinase-2;PLGF:placental growth factor; MMP3: matrix metalloproteinase-3 ;OPN: osteopontin; MCP-1: monocyte chemotactic protein-1; CHI3L1: chitinase 3 like protein-1]

Malignant	Plasma	Plasma	Plasma	Plasma	Plasma	WFL	WFL	WFL	WFL
n	Po	Pod1	Pod3	Pod7-13	Pod14-20	POD1	POD3	POD7-13	POD14-20
SQ	12	12	9	7	2	11	9	7	2
Pelvic	26	26	21	12	6	25	22	15	7

	PLS POD1 vs WFL POD1 (p)	PLS POD1 vs WFL POD1(p)	PLS POD 3 vs WFL POD3 (p)	PLS POD3 vs WFL POD3(p)	PLS POD 7-13 vs WFL pod7-13(p)	PLS POD 7-13 vs WFL POD 7-13 (p)	PLS POD 14-20 vs WFL POD 14-20(p)	PLS POD 14-20 vs WFL POD 14-20(p)
	SQ	Pelvic	SQ	Pelvic	SQ	Pelvic	SQ	Pelvic

Ang-2	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.333	0.001
VEGF	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.333	0.001
MMP-2	0.003	<0.001	<0.001	<0.001	0.001	<0.001	0.333	0.002
PLGF	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.333	0.001
MMP-3	0.027	<0.001	<0.001	<0.001	0.128	0.016	0.333	0.138
OPN	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.333	0.001
MCP1	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.333	0.001
CHI3L1	0.032	0.113	0.001	<0.001	0.001	<0.001	0.333	0.014

Supplementary Table 6 TNM staging, location of cancer, grading of the malignant study group (n=35, adenocarcinoma)

[The 2 rectal cancer patients (Stage 0;T-0, N-0) pathologically completely responded after neoadjuvant RT/chemotherapy]. Comorbidities of the malignant group were Pulmonary embolism ,1 (3%);Hypertension ,7(20%);Benign prostatic hyperplasia,2 (6%);Hyperlipidemia, 6(17%);Coronary artery disease,1(3%); myocardial infarction,1(3%);asthma,4(11%); depression ,2 (6%), anxiety,1(3%);Sleep Apnea ,4(11%); Diabetes mellitus,3(8%); Heart Murmur ,1(3%); Gastroesophageal reflux disease,5 (14%); Chronic obstructive pulmonary disease ,1(3%);Hypothyroidism,1(3%);osteoporosis,1(3%) and arrhythmia ,1 (3%).

TNM stages	Malignant group (n)	Pathological grading			Location of Cancer	
		Low	Intermediate	High	Colon	Rectal
Stage 0	2 (6%)	0	0	0	0	2
Stage 1	10 (29%)	7	3	0	4	6
Stage 2	11 (31%)	5	5	1	5	6
Stage 3	12 (34%)	5	5	2	5	7