

Table S1. SEER baseline

Variables	Overall
N	688
Age (mean (SD))	69.68 (11.36)
Age65 (%)	
<65	237 (34.45)
>65	451 (65.55)
Sex (%)	
Female	502 (72.97)
Male	186 (27.03)
Year2005 (%)	
<2005	318 (46.22)
>2005	370 (53.78)
Races (%)	
American Indian/Alaska Native	478 (69.48)
Asianor Pacific Islander	4 (0.58)
Black	199 (28.92)
Unknown	3 (0.44)
White	4 (0.58)
SEER stage (%)	
Localized	542 (78.78)
Regional	110 (15.99)
Distant	11 (1.60)
NA	25 (3.63)
Status of lymph nodes	
N+	17 (2.47)
NA	671 (97.53)
Diameter (cm)	
0-5	231 (33.58)
5-10	53 (7.70)

>10	14 (2.03)
NA	390 (56.69)
Hispanic	
Non-Spanish-Hispanic-Latino	635 (92.30)
Spanish-Hispanic-Latino	53 (7.70)
Sites of EMPD (%)	
Anus	22 (3.20)
Penis	20 (2.91)
Scrotum	151 (21.95)
Vagina	3 (0.44)
Vulva	492 (71.51)

Table S2. EMPD baseline

Variables	Overall
N	176
Age (mean (SD))	65.81 (9.57)
Age (%)	
<65	79 (44.89)
>65	97 (55.11)
BMI (mean (SD))	24.41 (3.17)
BMI (%)	
<25	103 (58.52)
>25	73 (41.48)
Sex (%)	
Male	157 (89.20)
Female	19 (10.80)
ASA	
1-2	152 (86.36)
3-4	24 (13.64)
Comorbidity (%)	
No	78 (44.32)
Yes	98 (55.68)
SEER stage (%)	
Localized	134 (76.14)
Regional	40 (22.73)
Distant	2 (1.14)
Sites of EMPD (%)	
Vulva	19 (10.80)
Penis	16 (9.09)
Scrotum	141 (80.11)
Diameter (mean (SD))	6.41 (2.91)
Diameter (cm)	
<5	81 (46.02)
5-10	80 (45.45)
>10	14 (7.95)
NA	1 (0.57)
Margin (%)	
Negative	144 (81.82)
Positive	31 (17.61)
NA	1 (0.57)
Lymphadenectomy(%)	
No	168 (95.45)

Yes	8 (4.55)
Status of lymph nodes	
N+	6 (3.41)
NA	170 (96.59)
Invasion level (%)	
Level1	133 (75.57)
Level2	12 (6.82)
Level3	31 (17.61)
LVI (%)	
No	172 (97.73)
Yes	4 (2.27)
Chemotherapy (%)	
No	171 (97.16)
Yes	5 (2.84)
Radiation (%)	
No	105 (59.66)
Yes	71 (40.34)
Reconstruction (%)	
Direct closure	67 (38.07)
Free skin flaps	24 (13.64)
Skin grafting	85 (48.30)
Surgical type (%)	
WLE	44 (25.00)
MMS	132 (75.00)
Intervals	
<2 year	65 (36.93)
>2 year	111 (63.07)
