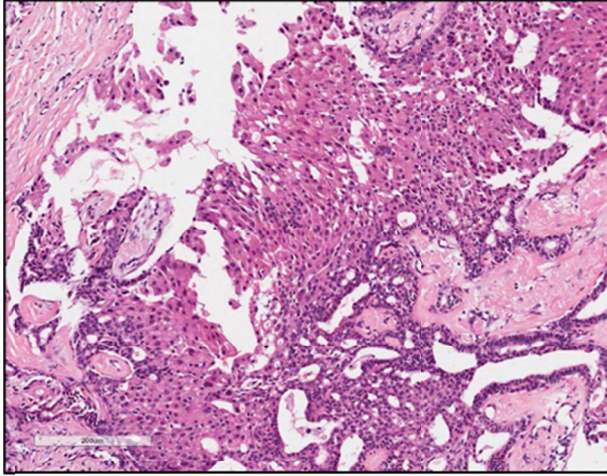


Supplementary Table S1. Distribution of histologic pattern and pathologic diagnosis of 12 EPC/SPC cases based on 2-tier or 4-tier classifications

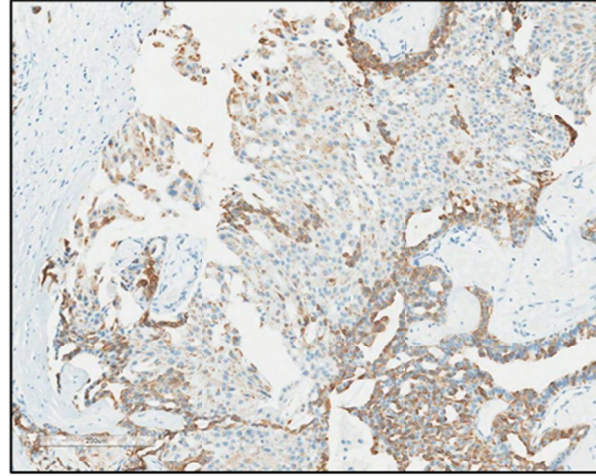
Histologic patterns	Case No.	Benign		Malignant	
		IDP	IDP with ADH	PC In situ ^a	PC with Invasion ^a
Large cystic pattern with fibrous capsule but no or rare myoepithelial cells	Case 1	0	1	19	0
	Case 2	0	1	19	0
	Case 3	0	0	17	3
	Case 4	0	0	19	1
	Case 5	0	0	16	4
	Case 6	1	3	16	0
	Case 7	0	0	17	3
	Case 8	0	0	18	2
Solid multinodular pattern with smooth contours but no or rare myoepithelial cells	Case 9	2	0	18	0
	Case 10	0	0	13	7
	Case 11	0	0	19	1
Solid multinodular and jigsaw pattern with ragged contours but no myoepithelial cells	Case 12	0	0	15	5

EPC, encapsulated papillary carcinoma; SPC, solid papillary carcinoma; IDP, intraductal papilloma; ADH, atypical ductal hyperplasia; PC, Papillary carcinoma; DCIS, ductal carcinoma in situ; PCIS, papillary carcinomas in situ.

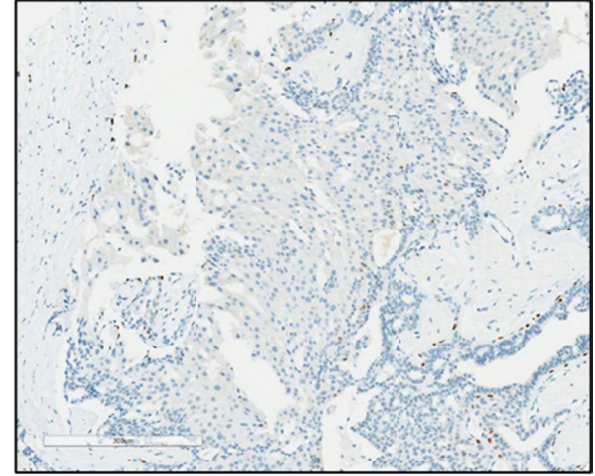
^aPC in situ includes IDP with DCIS, PCIS, EPC in situ, and SPC in situ, while PC with invasion includes EPC with invasion, SPC with invasion, and invasive PC.



1a) H&E stain

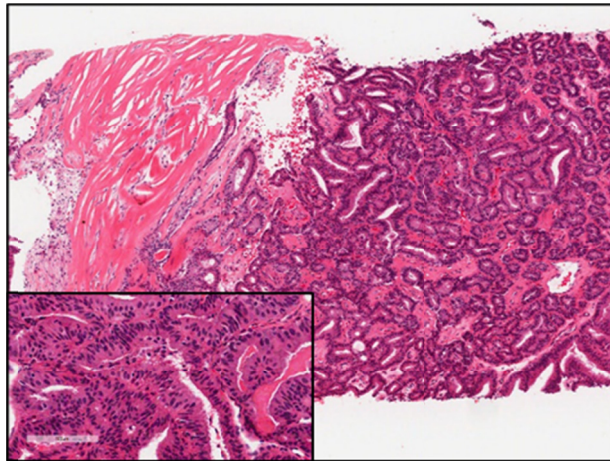


1b) IHC for CK5

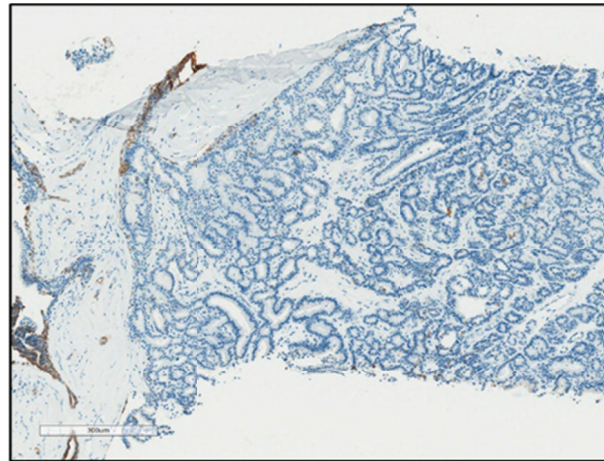


1c) IHC for P63

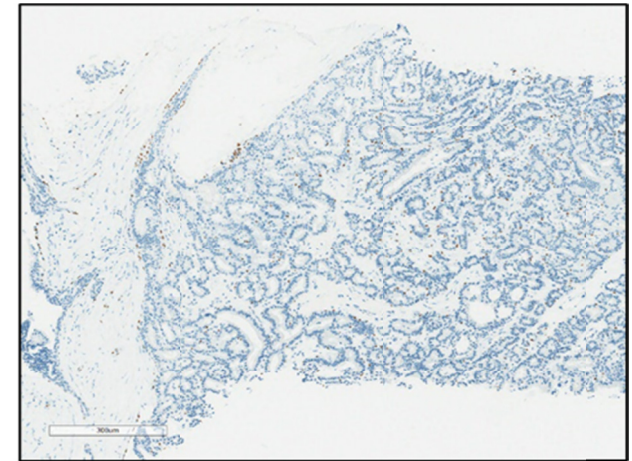
Supplementary Fig. S1. The first case with apocrine metaplasia.



2a) H&E stain

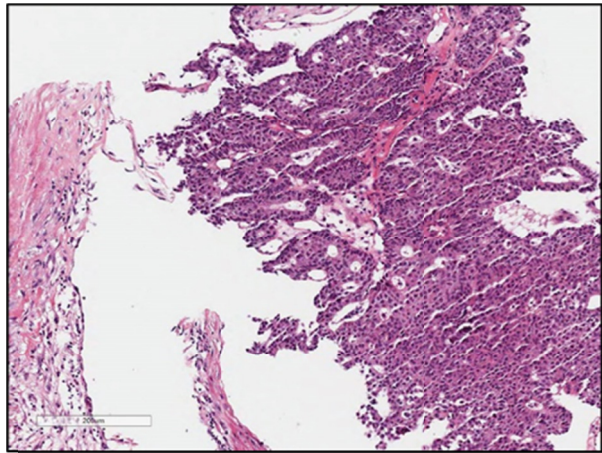


2b) IHC for CK5

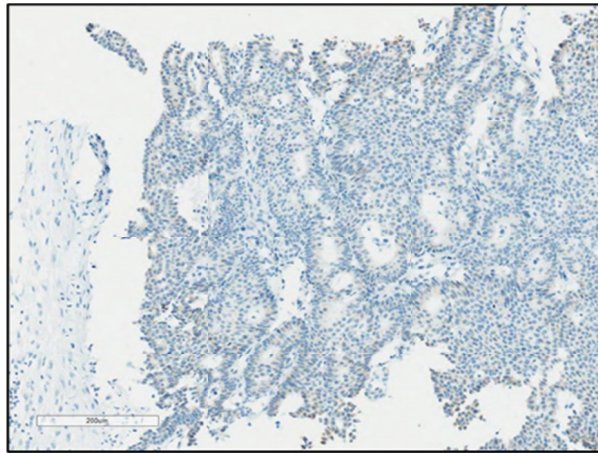


2c) IHC for P63

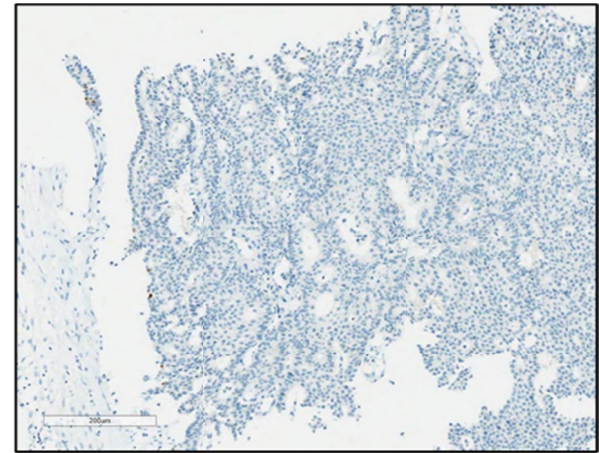
Supplementary Fig. S2. The second case with flat epithelial atypia-like features. How-power view of this case showing proliferation of stratified monotonous columnar cells with low grade nuclear atypia (inset).



3a) H&E stain

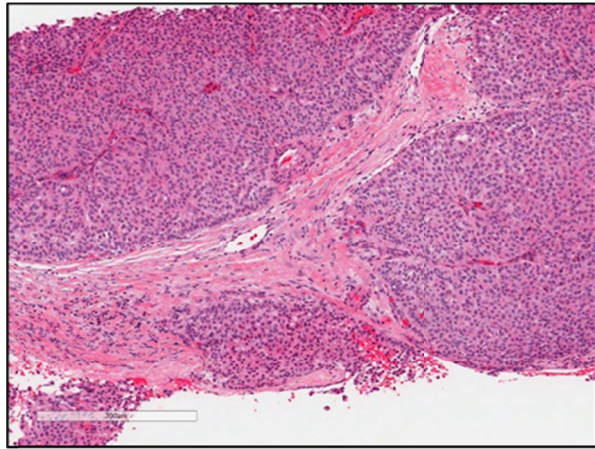


3b) IHC for CK5

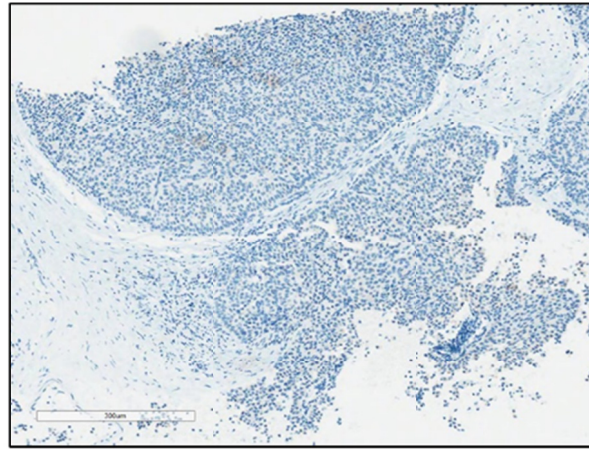


3c) IHC for P63

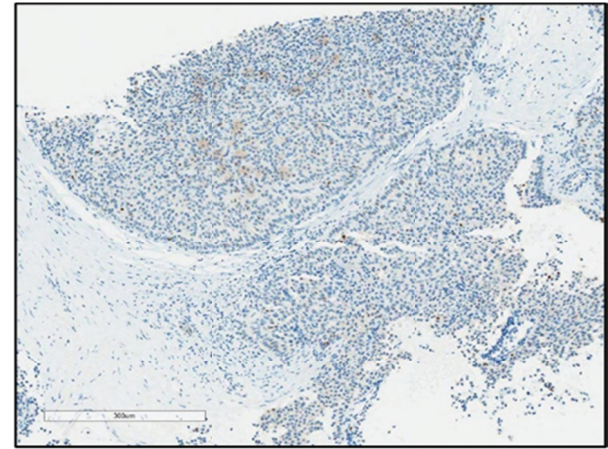
Supplementary Fig. S3. The third case showing large cystic pattern with fibrous capsule but no myoepithelial cells along the papillae and a few scattered myoepithelial cells around the periphery.



4a) H&E stain

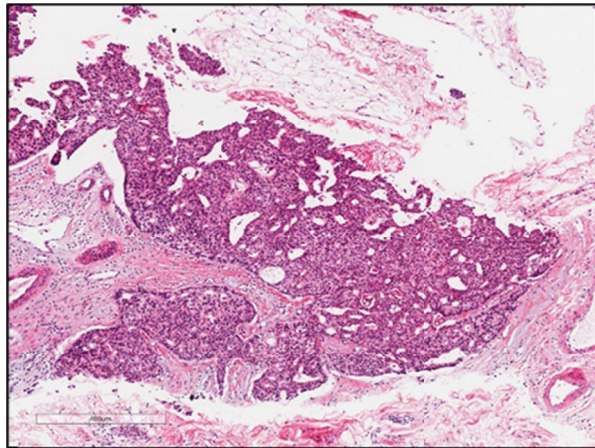


4b) IHC for CK5

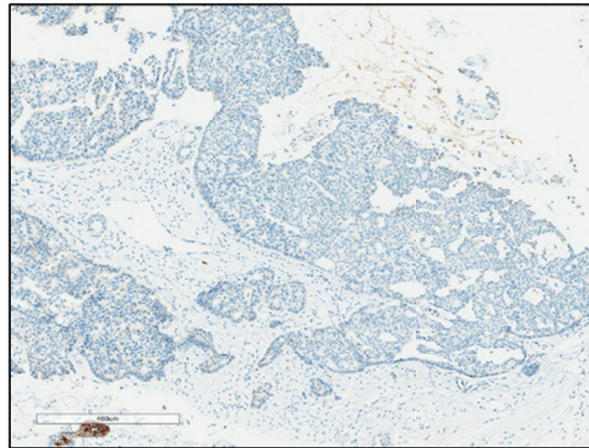


4c) IHC for P63

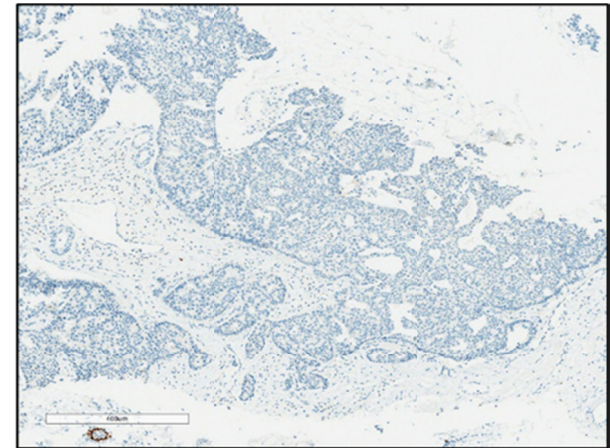
Supplementary Fig. S4. The fourth case exhibiting solid multinodular pattern with smooth contours but no myoepithelial cells along the papillae and at the periphery.



5a) H&E stain



5b) IHC for CK5



5c) IHC for P63

Supplementary Fig. S5. The fifth case displaying predominant solid multinodular and jigsaw pattern with ragged contours but no myoepithelial cells along the papillae and at the periphery.