

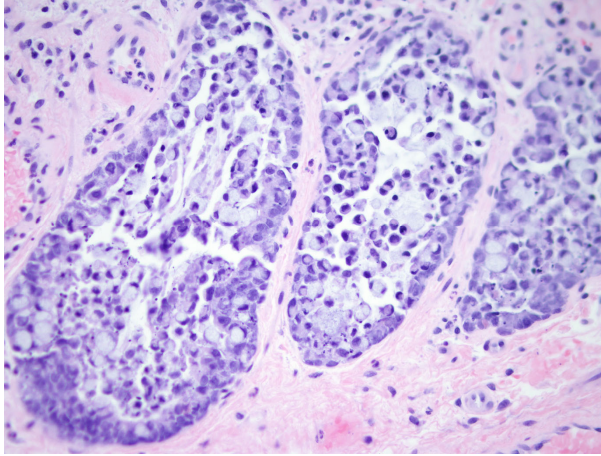
# Mimickers in GI Pathology

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- Disclosures:
  - Salary support: C<sub>2</sub> Therapeutics

## Signet Cell Change

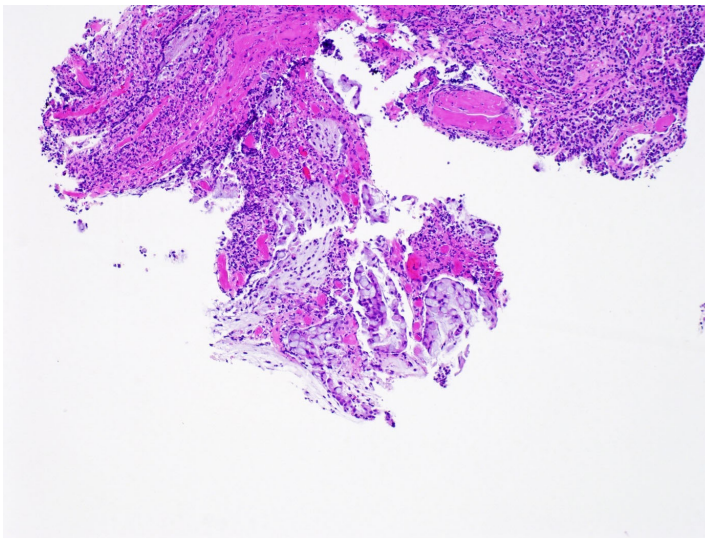
- Epithelium becomes detached and begins to slough



- Cells round up
- Within the basement membrane
- Distended crypts
- Reparative changes = alarming
- Mitoses may be conspicuous
  - Look at intact adjacent gastric mucosa

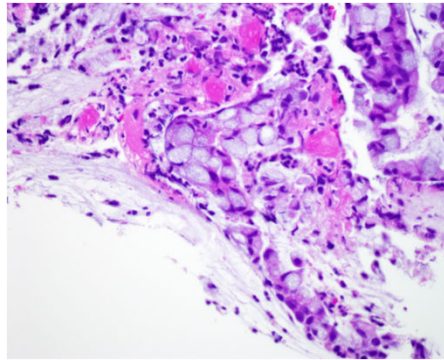
Wang et al. Signet Ring Cell Change vs. Signet Ring Cell Carcinoma. A Comparative Analysis. Am J Surg Pathol. 2003; 27:1429-1433

## Signet Ring Cell Change (SRCC)



- Pseudomembranous colitis
  - Classic association
  - 28% cases of PC show variable numbers of SRCs
- Inflammatory bowel disease
- Ischemic injury
- *H. pylori* gastritis
- Reported in many organs
  - Endometrium
  - Prostate
  - Bladder

Dhingra and Wang. Nonneoplastic signet-ring cell change in gastrointestinal and biliary tracts: a pitfall for overdiagnosis. Ann Diagn Pathol. 2011 Dec;15(6):490-6



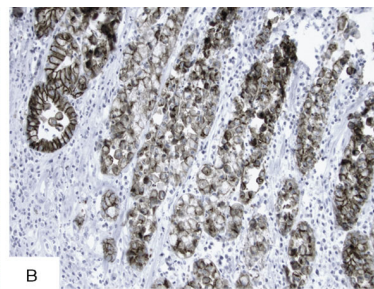
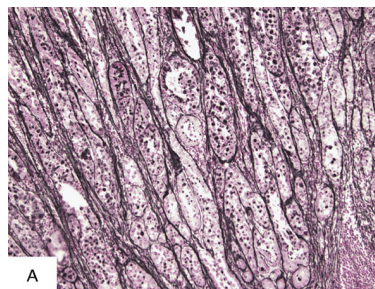
Mucin stain pointless

**TABLE 1.** Results of Histochemical and Immunohistochemical Stains in Signet-Ring Cell Change and Signet-Ring Cell Carcinoma

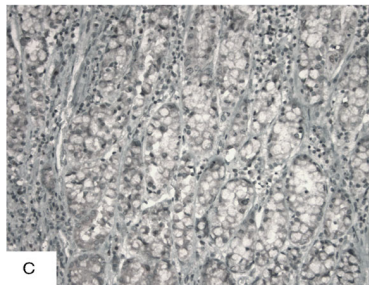
Stain	Signet-Ring Cell Change	Signet-Ring Cell Carcinoma
PAS	Strongly positive	Strongly positive
DPAS	Strongly positive	Strongly positive
E-cadherin	100% of cells strongly positive	70–75% of cells weakly positive 25–30% of cells negative
P53	100% of cells negative	>50% of cells strongly positive
Ki-67	100% of cells negative	42–60% of cells positive

Wang et al. Signet Ring Cell Change vs. Signet Ring Cell Carcinoma. A Comparative Analysis. Am J Surg Pathol. 2003; 27:1429-1433

Reticulin



Ecadherin



Ki67

Boncher et al. Reticulin staining clarifies florid benign signet ring cell change with mitotic activity in a penetrating gastric ulcer. Am J Surg Pathol. 2011 May;35(5):762-6

