

2012 Fall Update in Surgical Oncology

Pathological Evaluation of Malignant Colon and Rectal Polyps

Douglas Filipenko MD FRCPC
Department of Pathology and Laboratory
Medicine
St Paul's Hospital
Vancouver BC

Disclosures

No conflicting interests

Objectives

- Review the definition of malignant polyp
- Identify the minimum amount of data required for a complete report
- Identify some common challenges to pathological assessment of malignant polyps

Malignant Polyp Definition

- Polyps with invasive adenocarcinoma through the muscularis mucosae into the submucosa
- Excludes invasion into the lamina propria or muscularis mucosae (high grade dysplasia)

Malignant Polyp Report

- Haggitt levels for pedunculated polyps
- Kikuchi levels for sessile polyps

Haggitt Levels Pedunculated Polyp



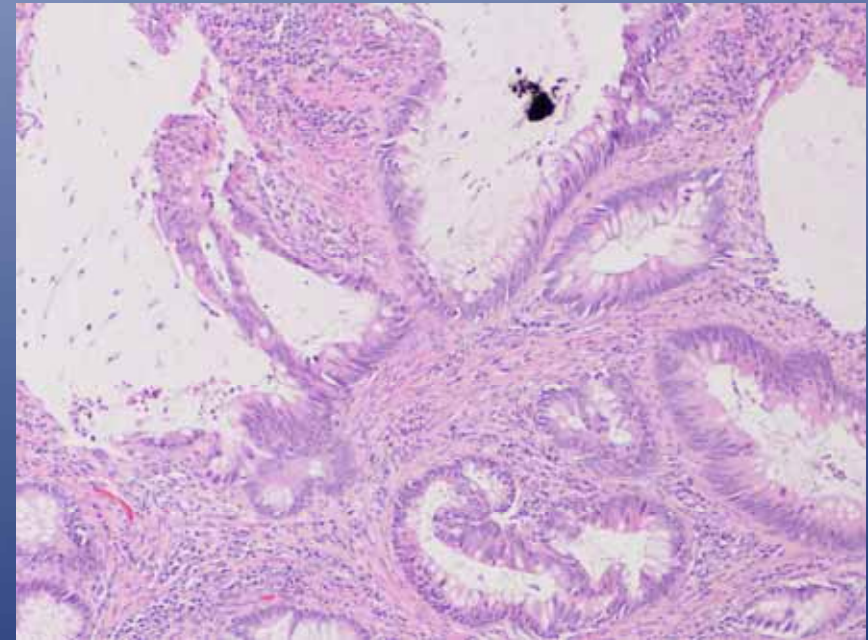
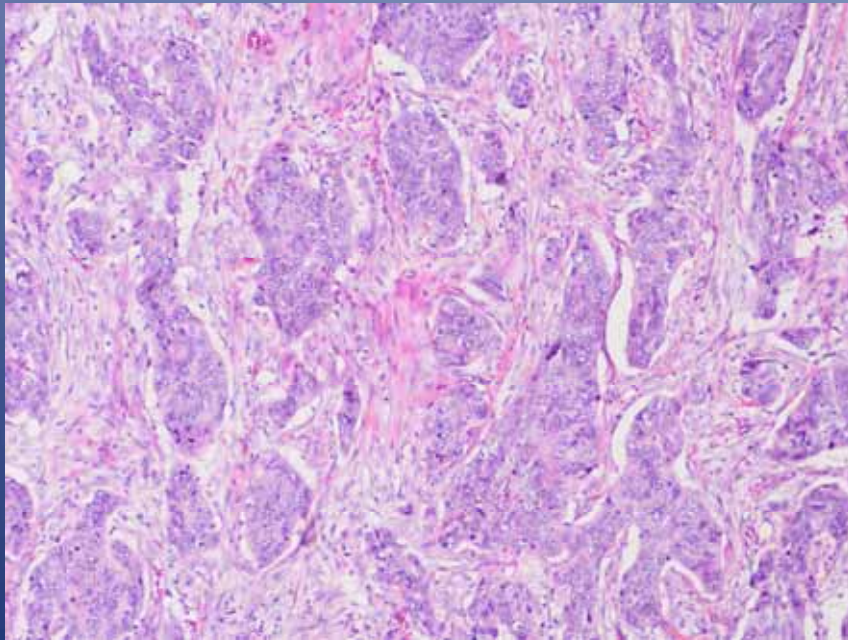
Kikuchi Levels Sessile Polyp



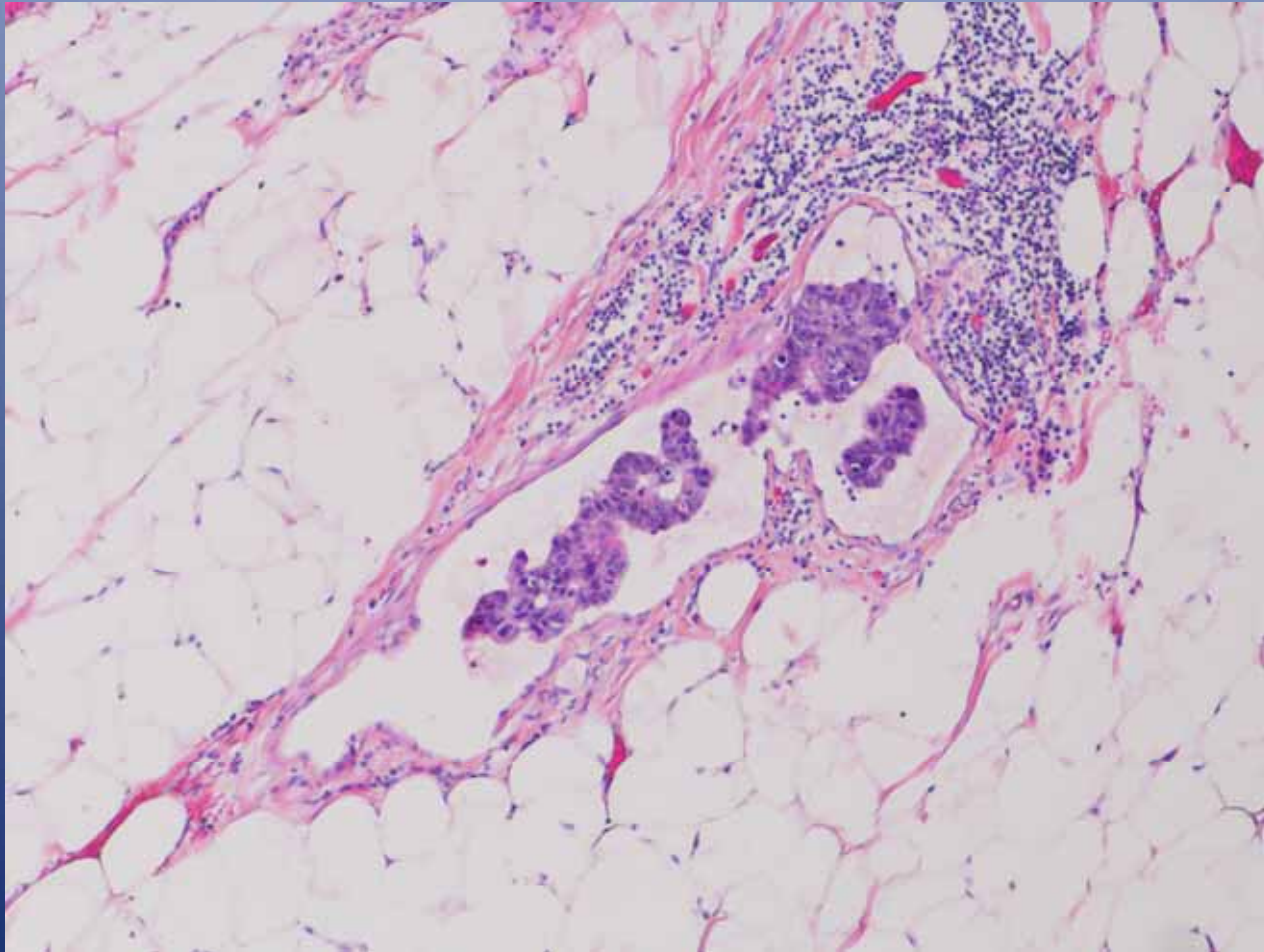
Malignant Polyp Report

- High grade (poorly differentiated) adenocarcinoma
- Angiolymphatic invasion
- Completeness of excision
- Distance from margin (mm)

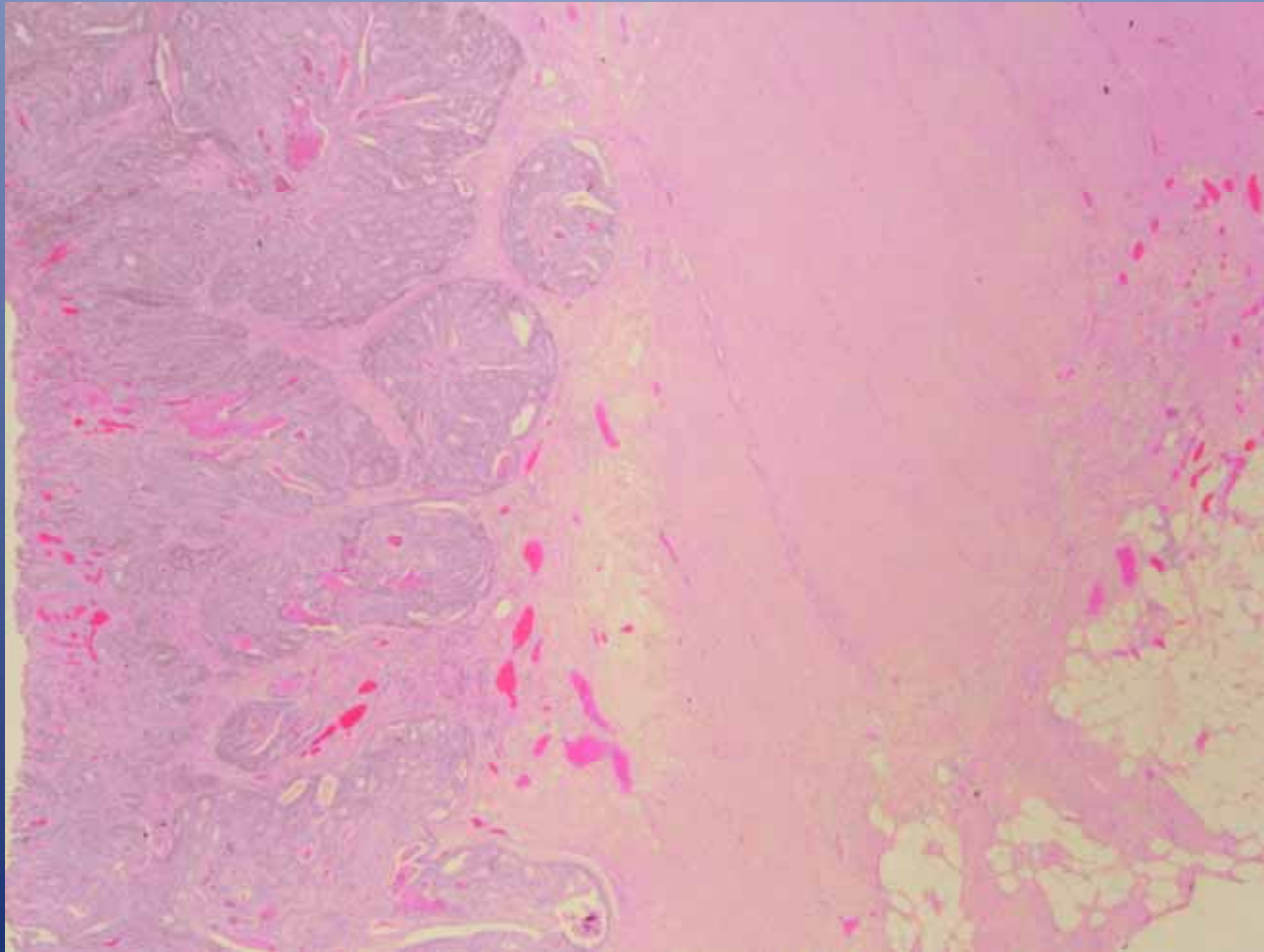
Carcinoma Grade



Angiolymphatic Invasion



Distance Measurement



Challenges to Polyp Evaluation

- Deciding whether there is poorly differentiated carcinoma present
- Correctly identifying angiolymphatic invasion
- Accurately measuring distance to margin and assessing completeness of excision

Challenges to Polyp Evaluation

- Orientation of tissue in the paraffin block
- Correctly identifying the stalk and position of attachment before submission to paraffin block
- Prior torsion of pedunculated polyps
- Cautery and forceps crush artifact
- Artifacts of formalin fixation or lack of fixation
- Measurement

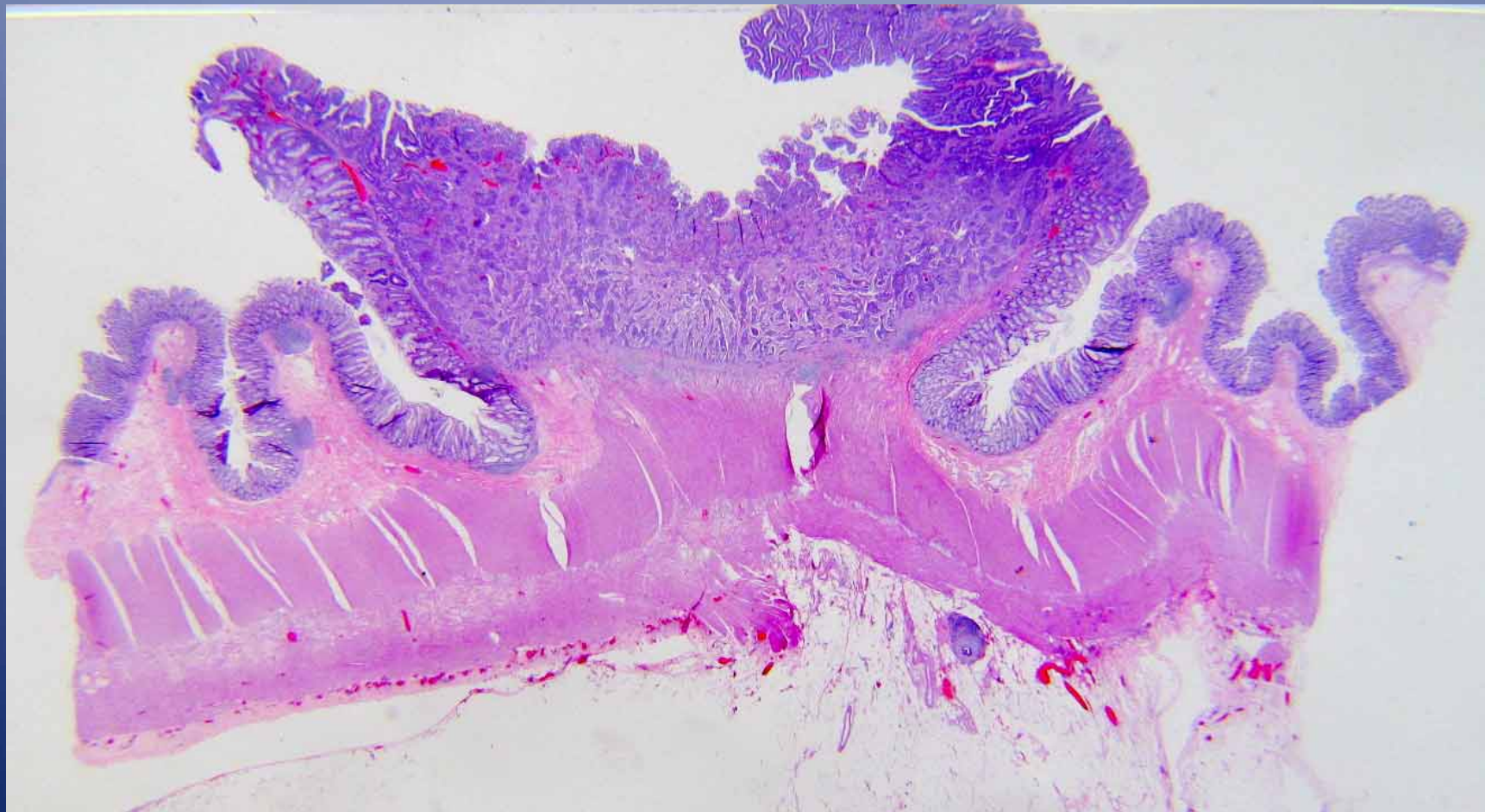
Challenges to Polyp Evaluation

- Orientation of tissue in the paraffin block

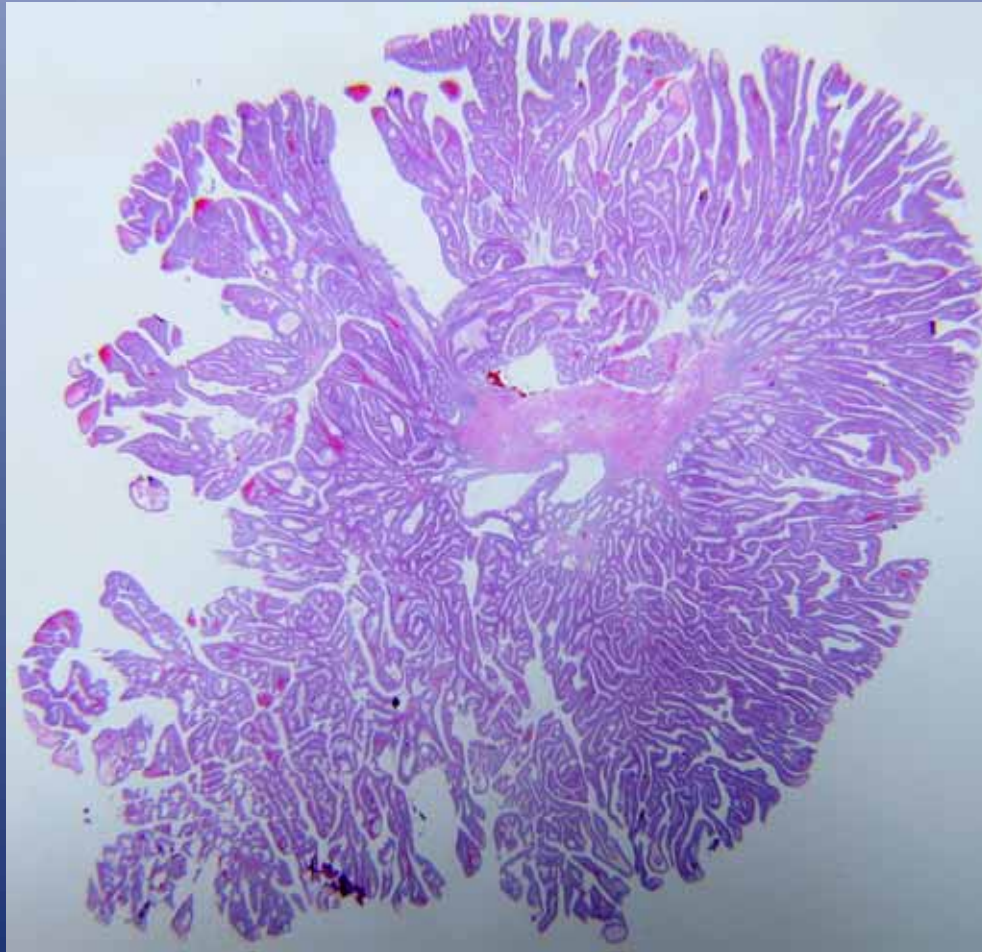
Well Oriented Pedunculated Polyp



Well Oriented Sessile Polyp



Challenging Orientation



Challenges to Polyp Evaluation

- Correctly identifying the stalk and position of attachment before submission to paraffin block

Stalk Position



Stalk Position



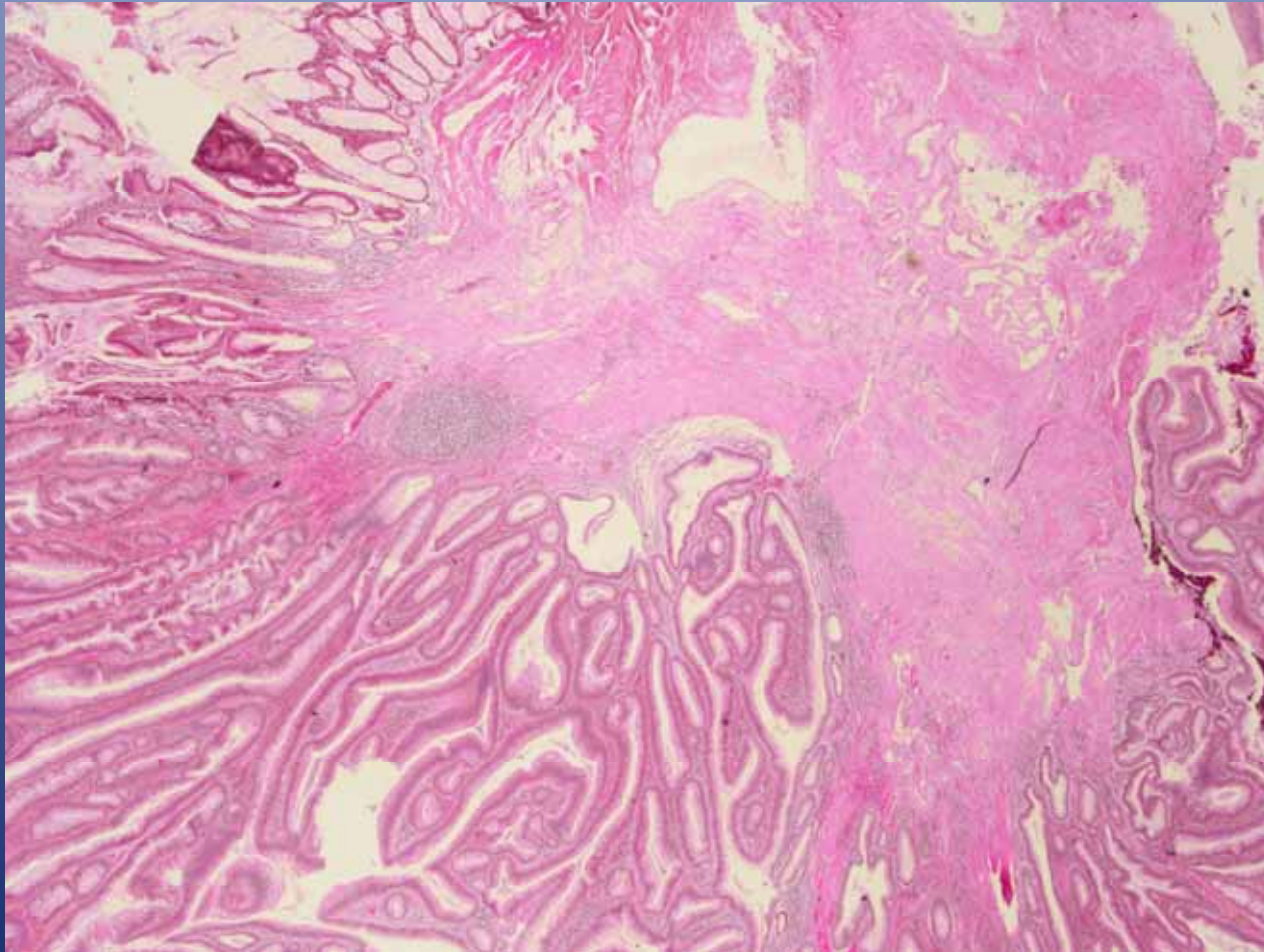
Stalk Position



Challenges to Polyp Evaluation

- Prior torsion of pedunculated polyps

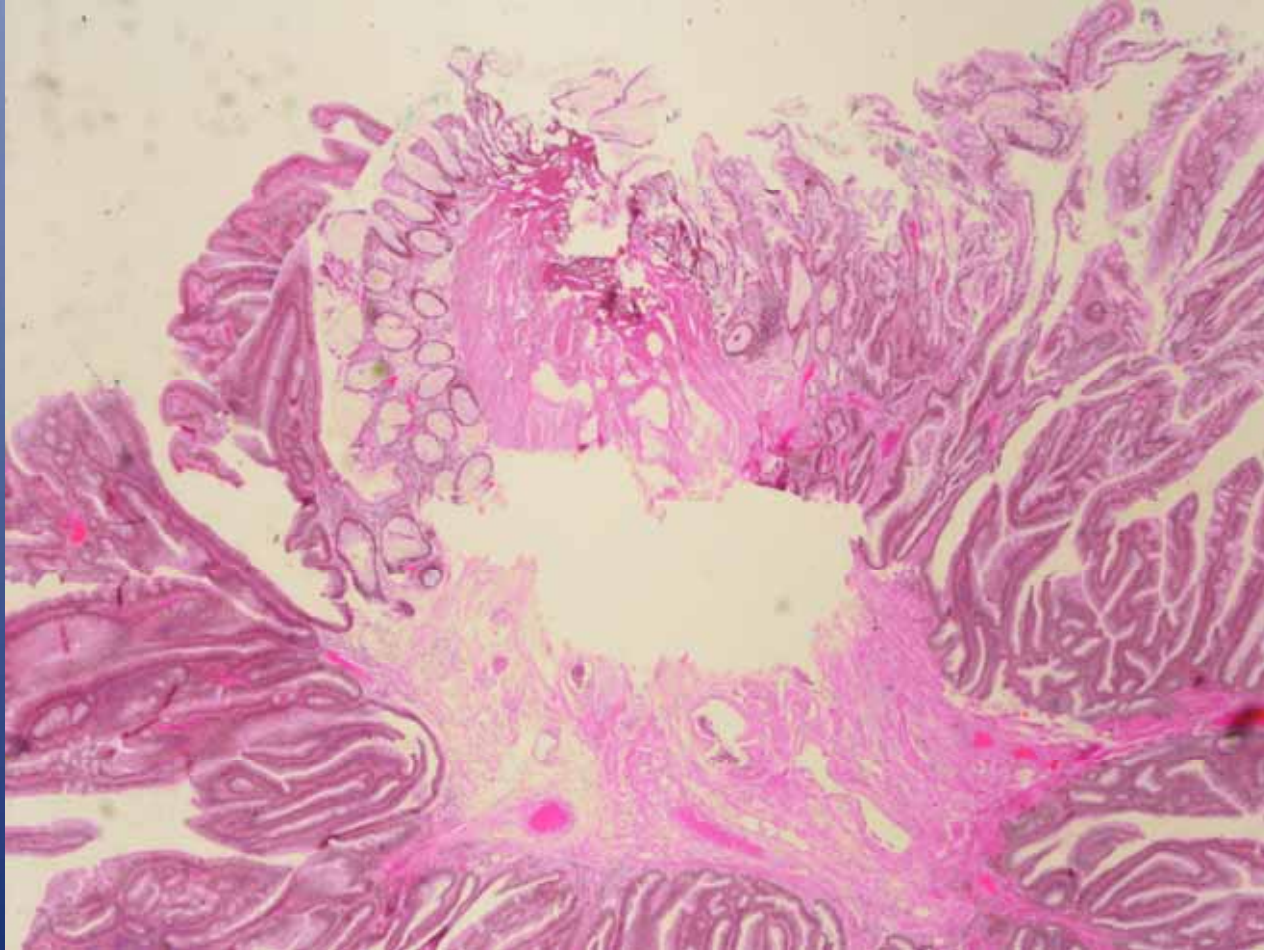
Torsion



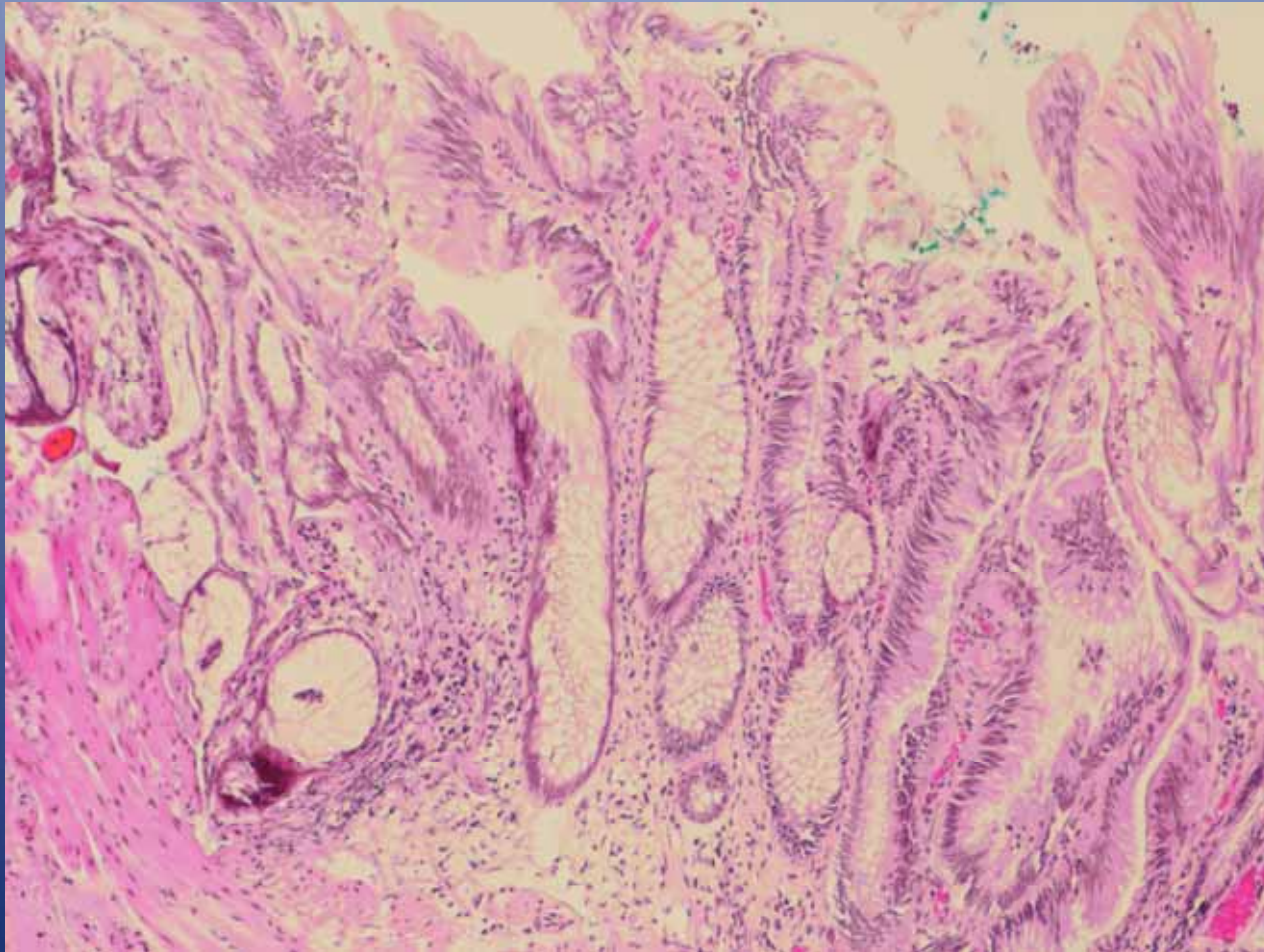
Challenges to Polyp Evaluation

- Cautery and forceps crush artifact

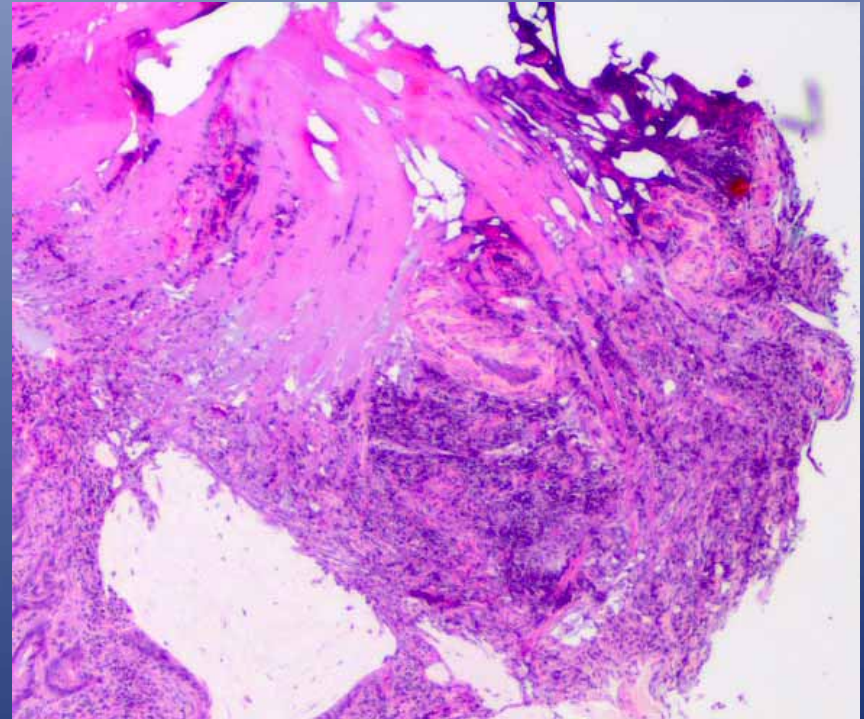
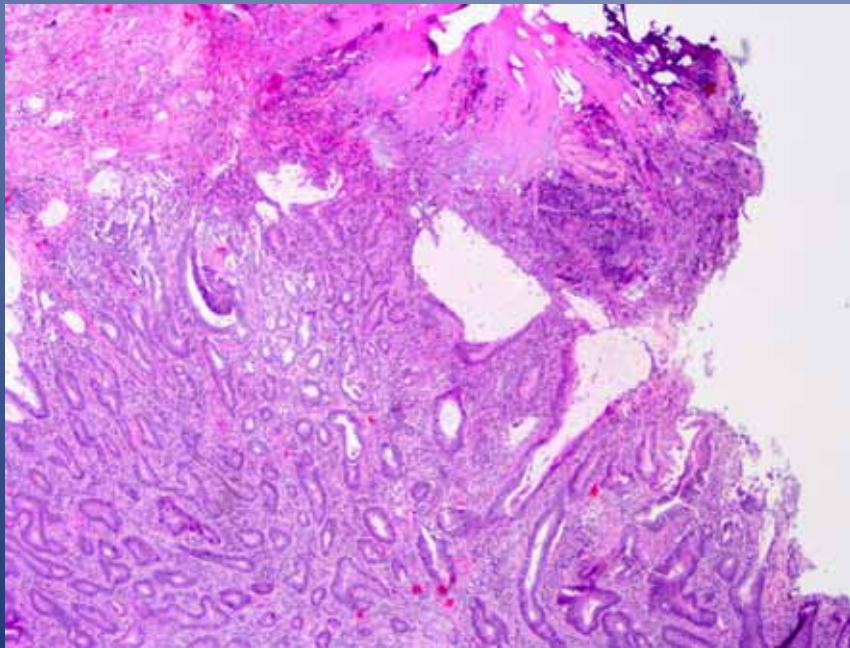
Cautery Artifact



Cautery Artifact



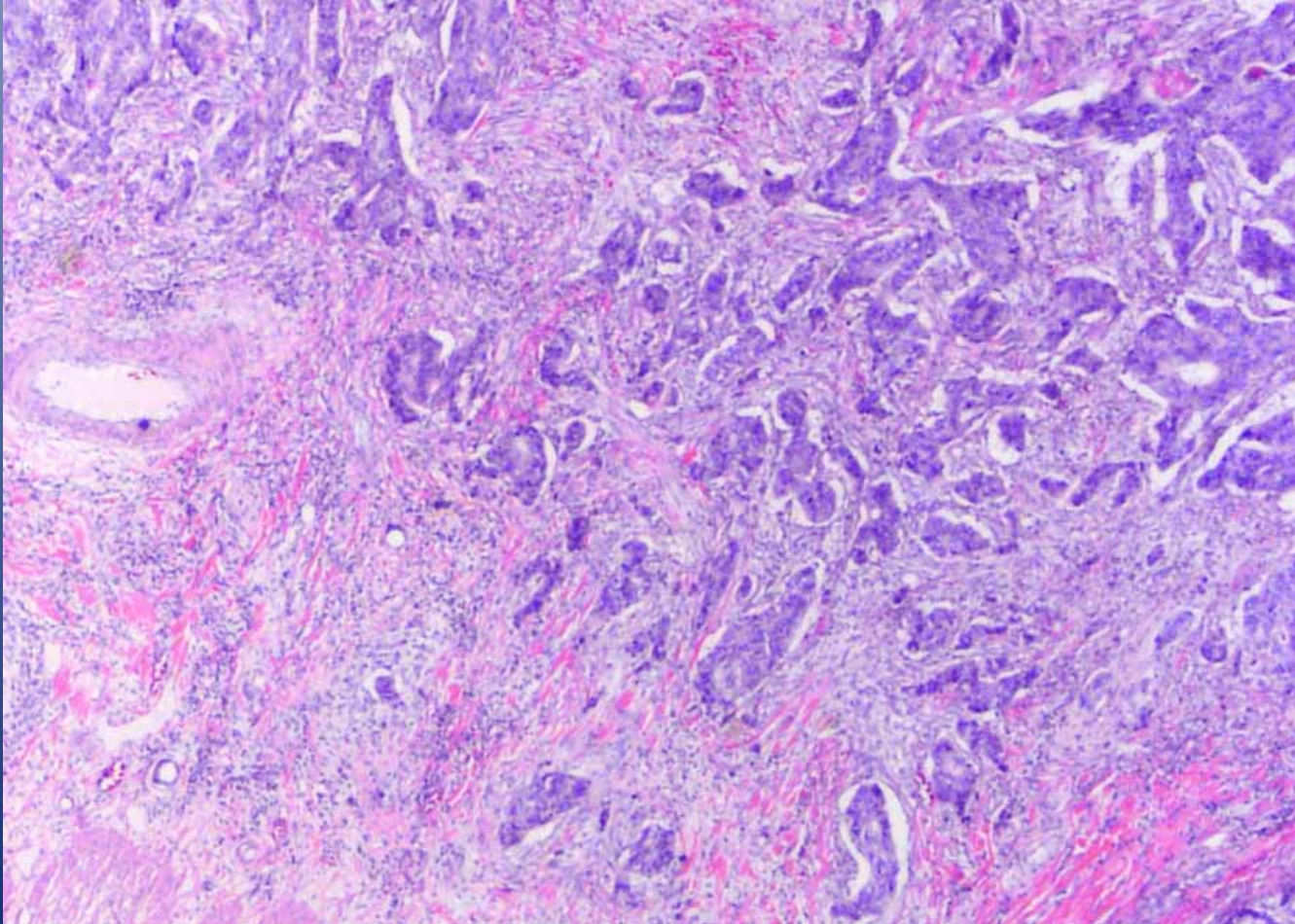
Cautery Artifact



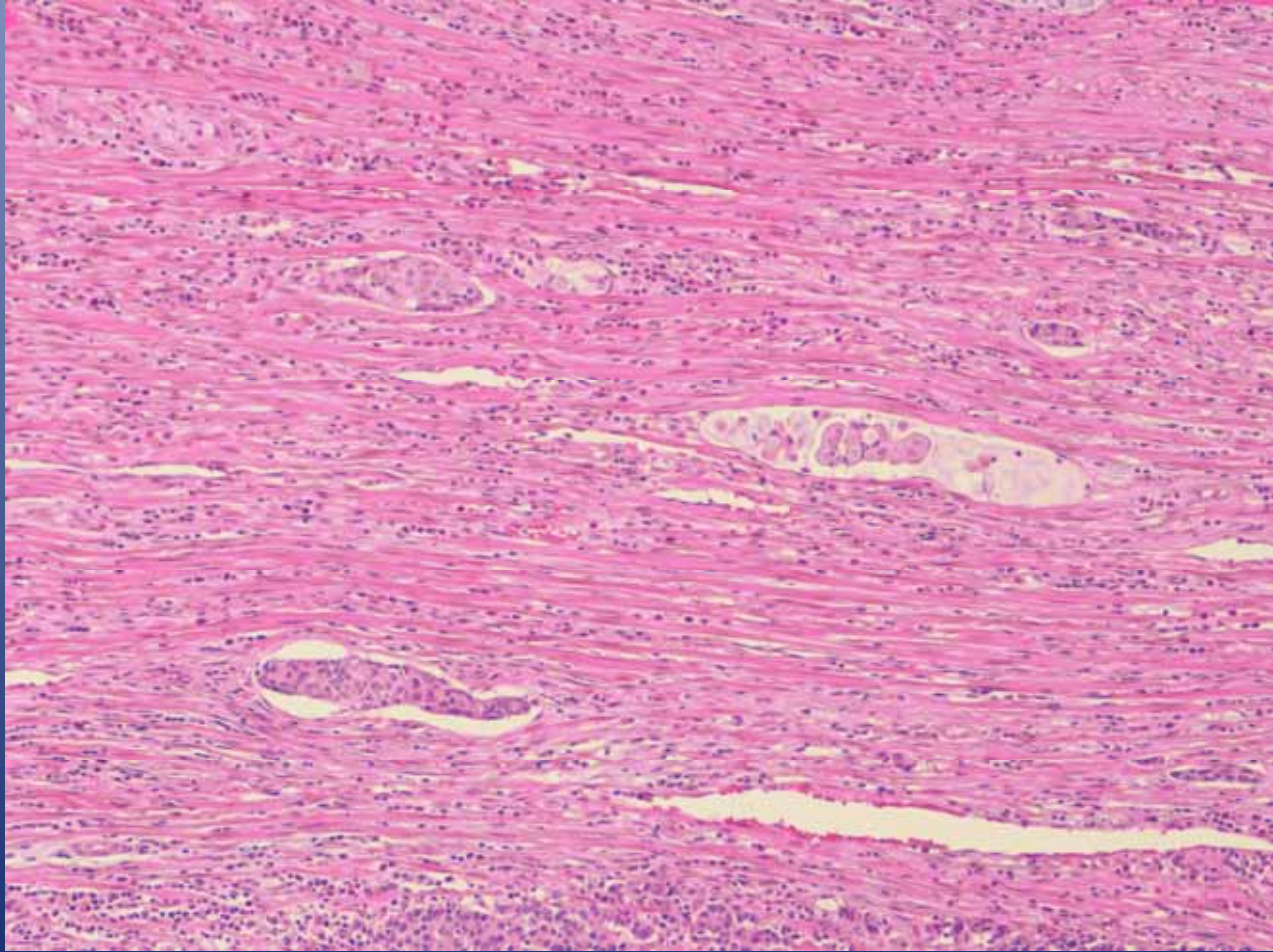
Challenges to Polyp Evaluation

- **Artifacts of formalin fixation or lack of fixation**

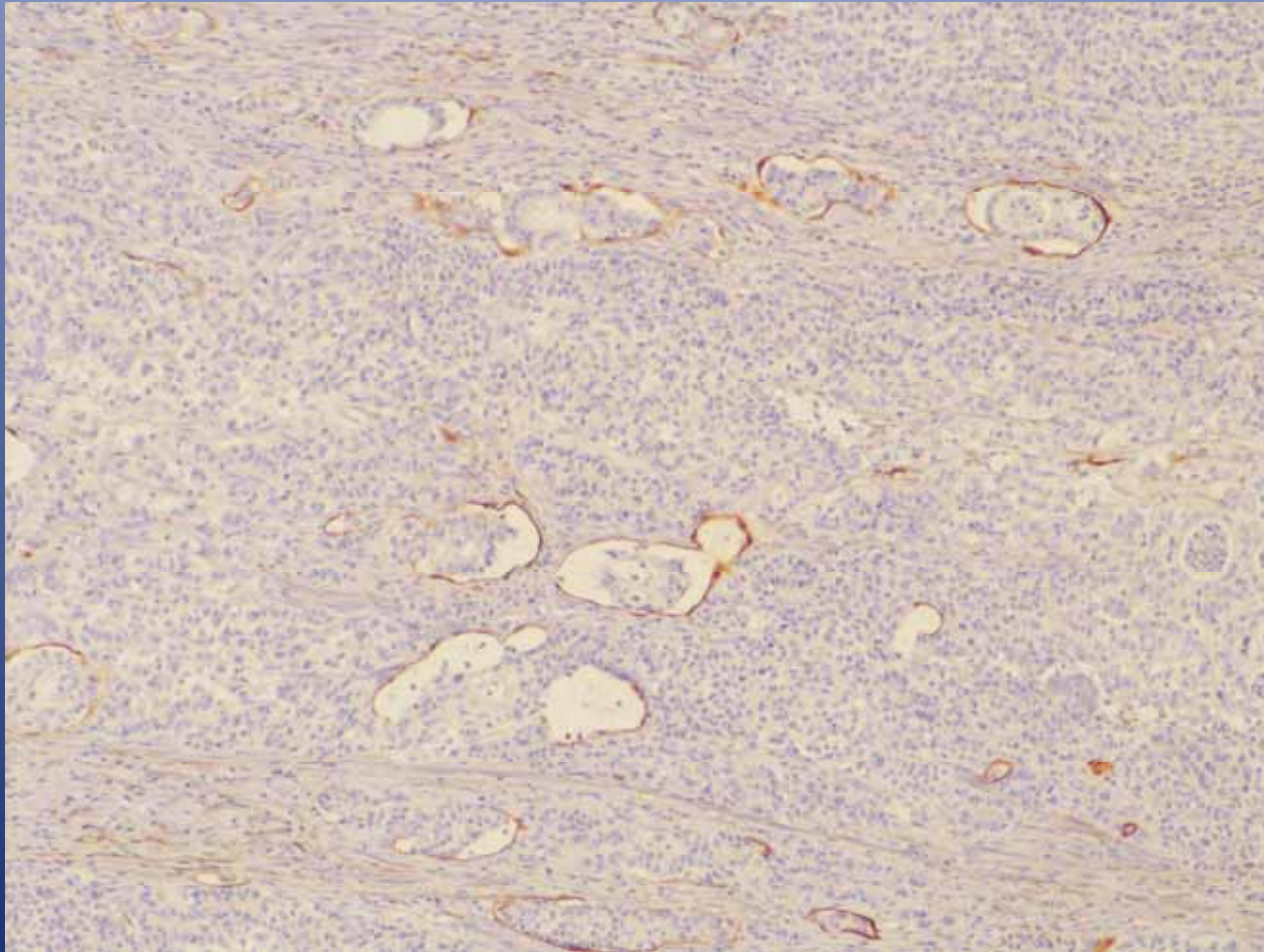
Artifact of Formalin Fixation



Artifact of Formalin Fixation



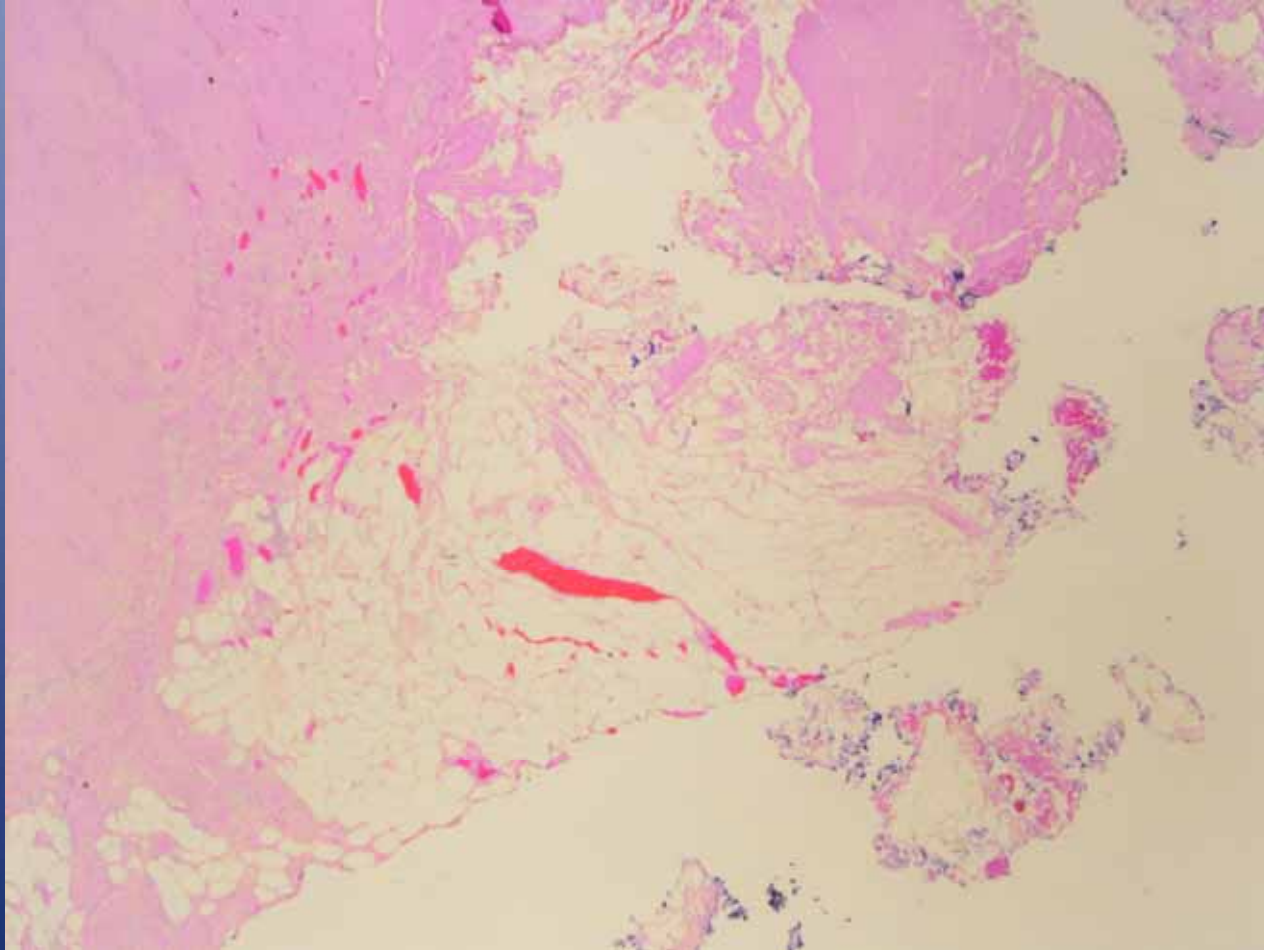
Artifact of Formalin Fixation



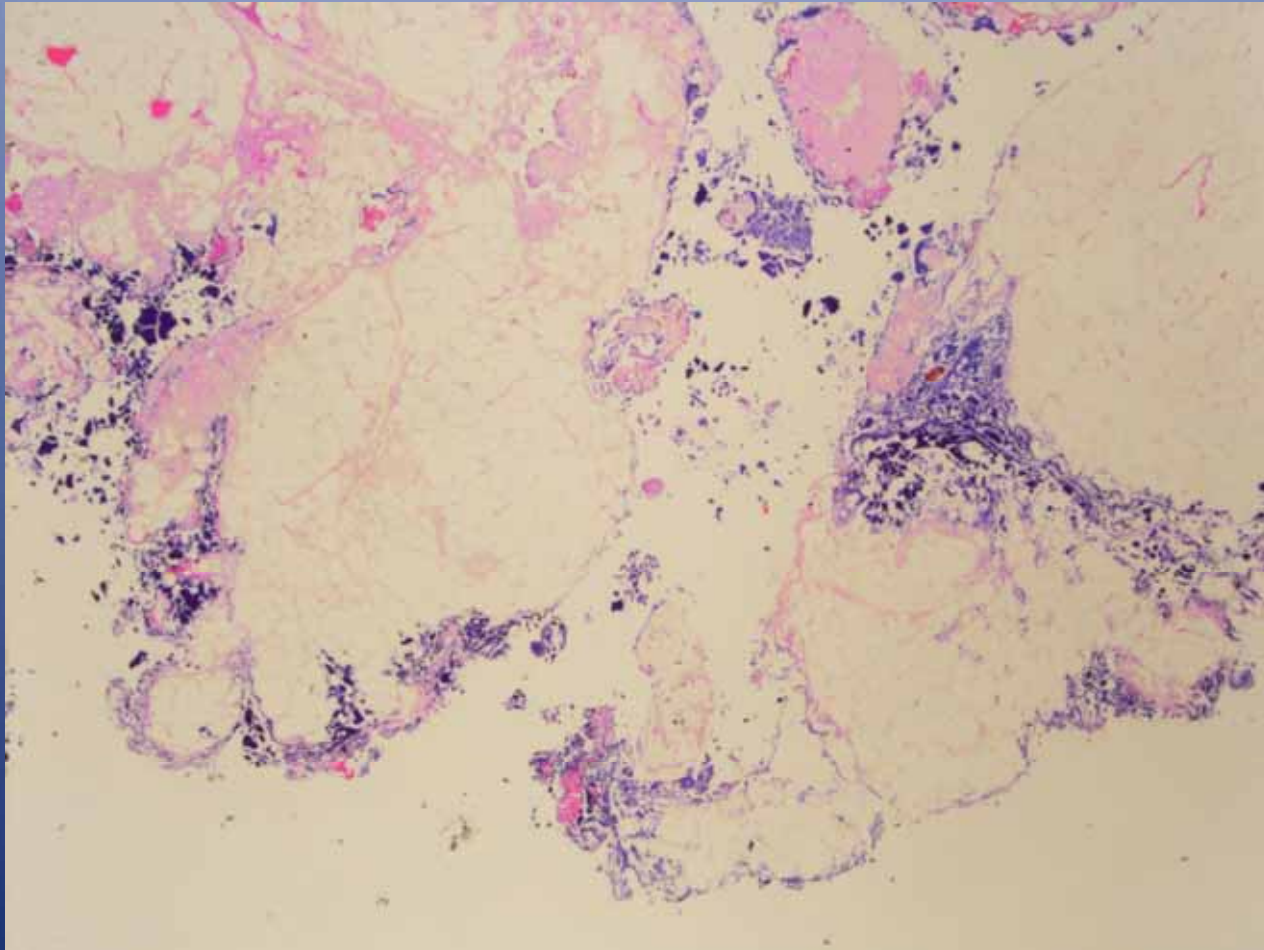
Challenges to Polyp Evaluation

- Measurement

Measurement



Measurement



Review

- Definition of malignant polyp
- Information required for an optimal report
- Challenges to acquiring the information

Thank you for your attention!

