

## Histopathological categories in the diagnostics of Barrett oesophagus

1. **Negative for dysplasia**
2. **Low grade dysplasia**
3. High grade dysplasia
4. Adenocarcinoma
5. **Occasionally: indefinite for dysplasia**

### 1. **Negative for dysplasia:**

**Definition:** columnar cell metaplasia with goblet cells within a distal oesophageal region, usually identified by endoscopy

**Differential:** ectopic gastric mucosa with goblet cell metaplasia (inlet patches): in up to 10% of the patients, usually in the proximal esophagus

**There are often regenerative changes:** many patients present with inflammation/GERD (gastrointestinal reflux disease). Therefore, regeneration in the basal crypt zone and lack of maturation of surface epithelium is often seen. Typically, there is a mild crowding and stratification of the nuclei.

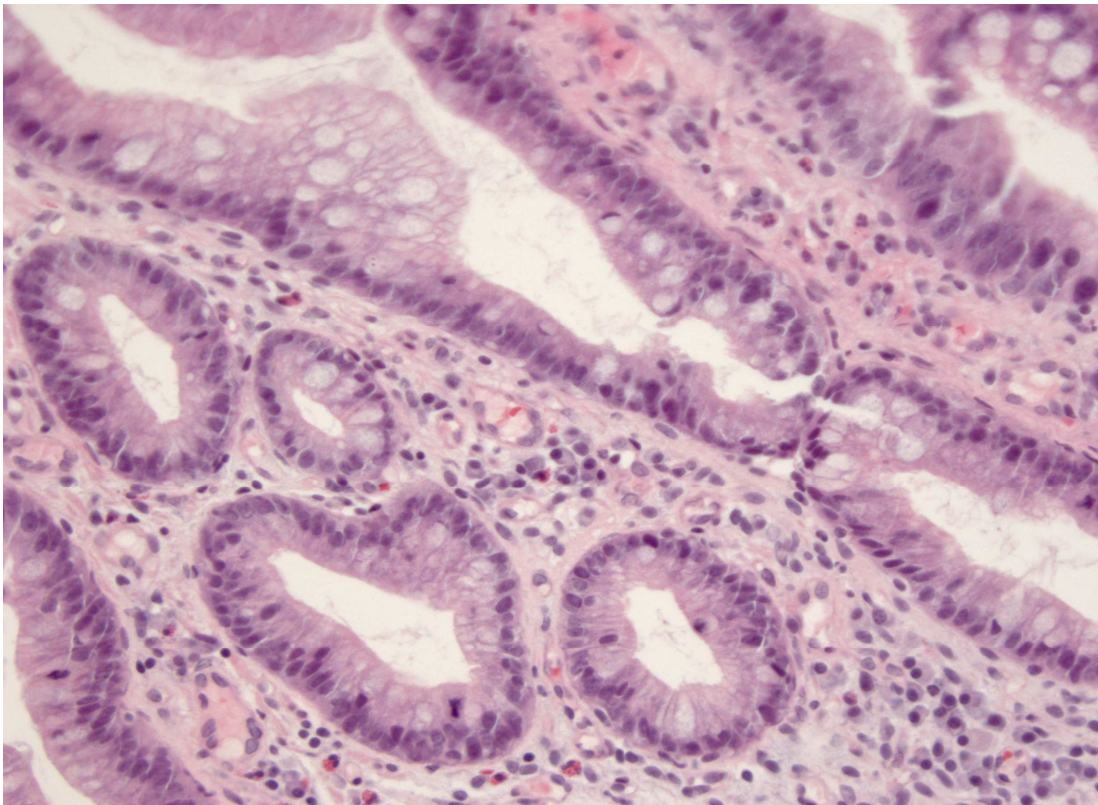
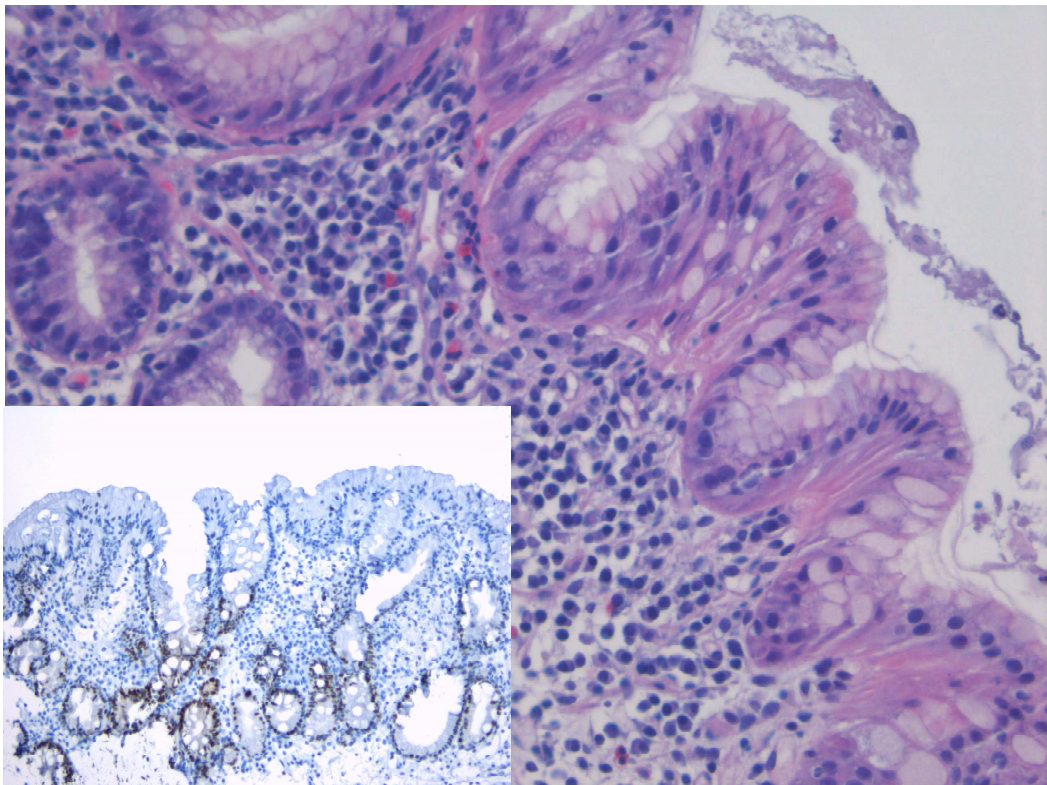
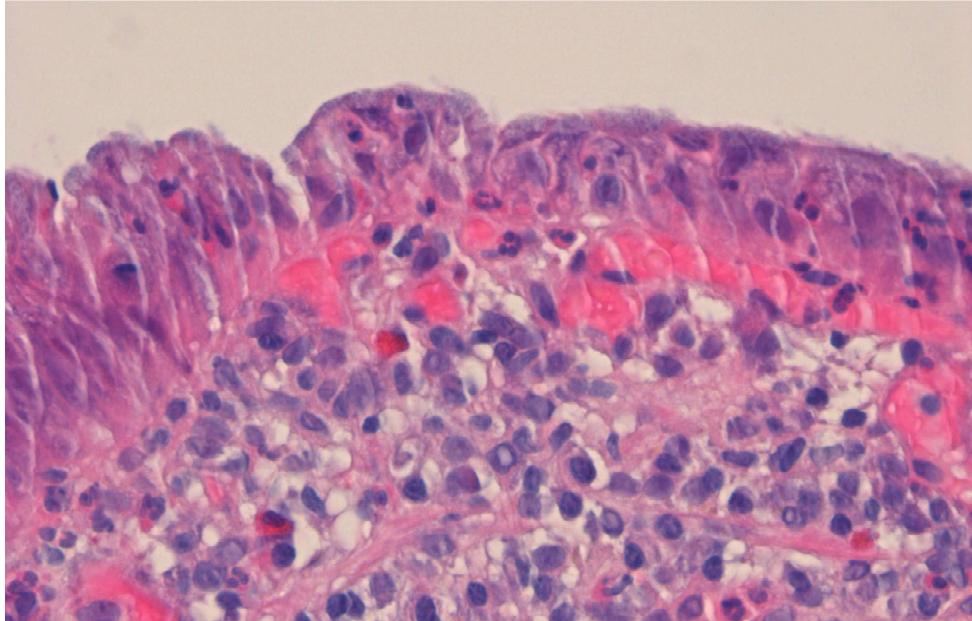


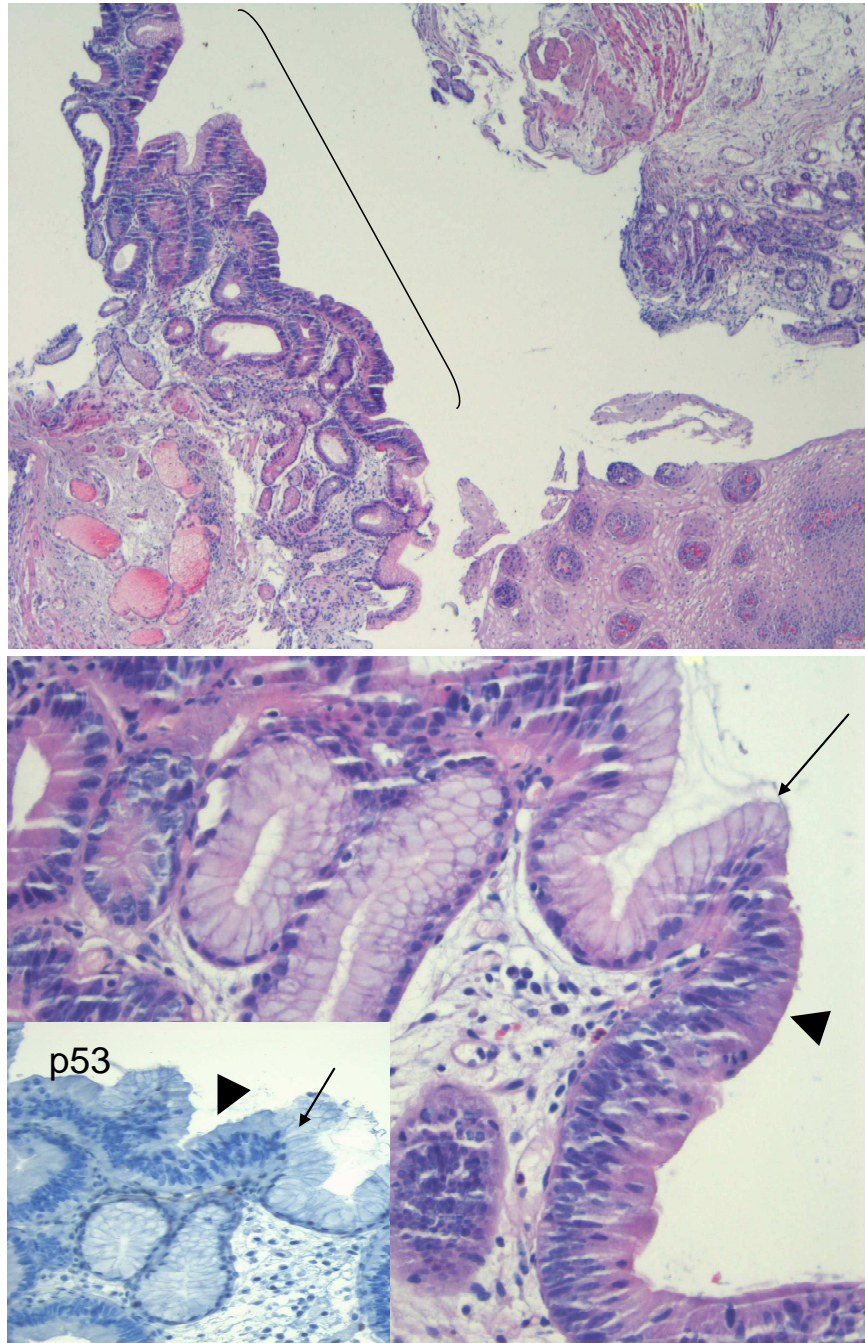
Figure 1, Barrett mucosa, regeneration





## 2. Low grade dysplasia (Figures 2 and 3)

- 1) **Adenomatous dysplasia:** There are evident changes at the surface: epithelial cells show loss of goblet cells and a significant stratification, comparable to those of colon adenomas. In the most parts, the pencil shaped nuclei are limited to the basal portion of the cell cytoplasm. There is a sharp border to the normal epithelium

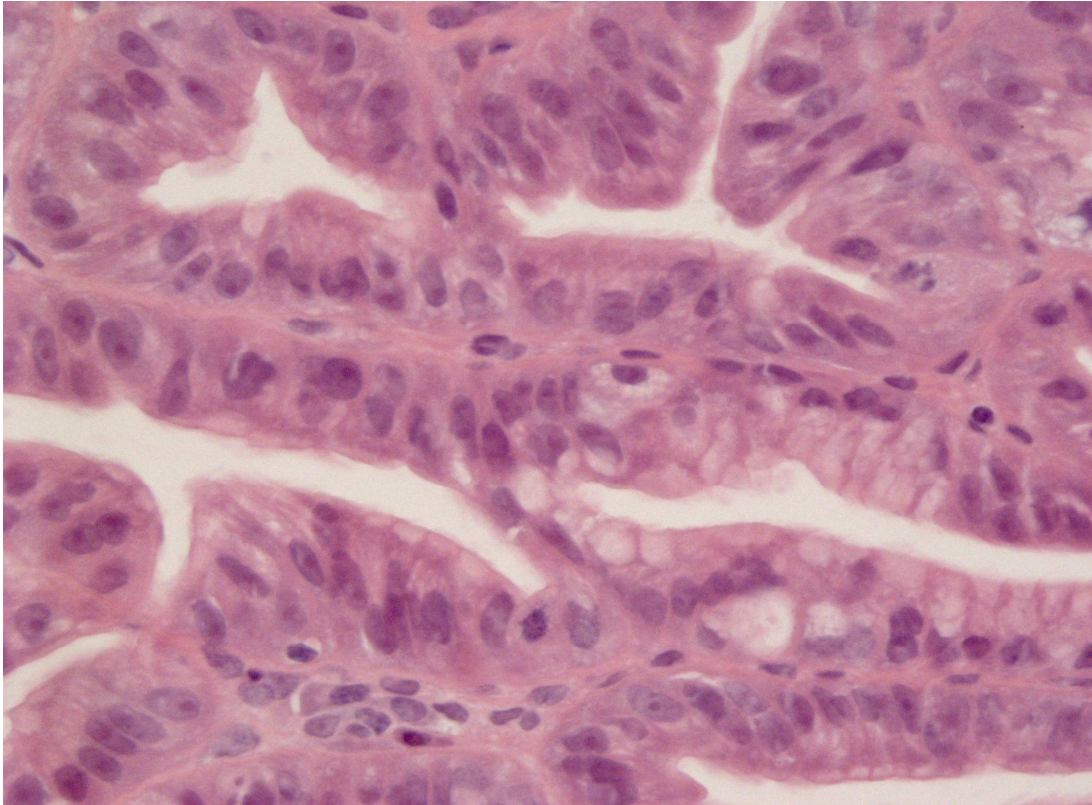


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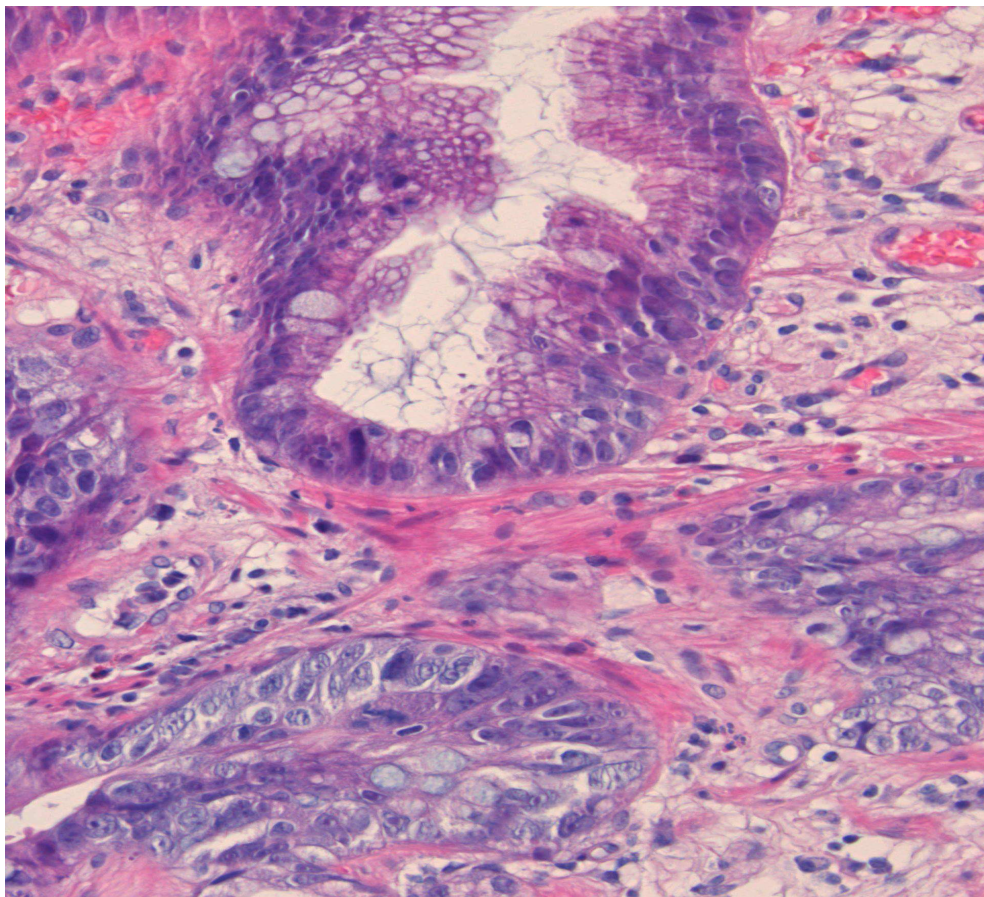
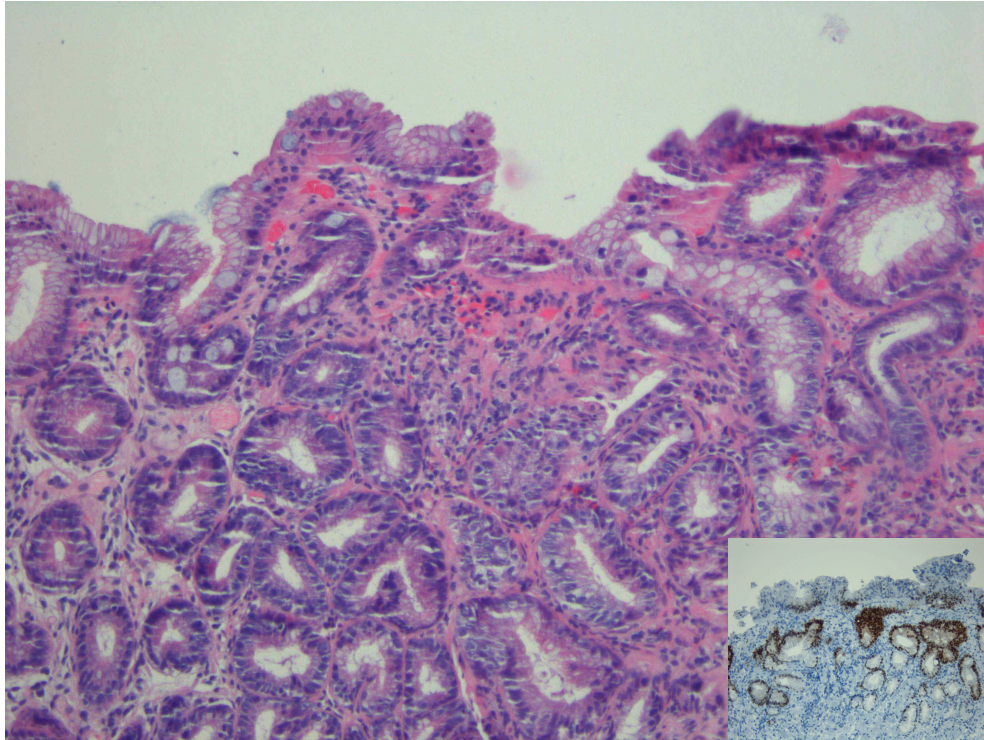
**Foveolar dysplasia**

Enlarged small round or oval cells, abundant cytoplasm. No hyperchromasia





3) **Crypt dysplasia** pattern: in the overview, there is a normal surface maturation. However, basal crypts exhibit complex architectural changes, with stratification, hyperchromasia and nuclear atypia/enlargement pleomorphism. Overall, the histological changes exceed the regeneration atypia. Higher magnification typically reveals at least focal stratification at the surface. P53 immunohistochemistry is usually strongly positive; confirming the dysplastic nature of these crypts.



### **Indefinite for dysplasia**

In few cases, where the surface epithelium can not be evaluated, or if there is a significant atypia and at the same time extensive inflammation, diagnosis “indefinite for dysplasia” is justified.

