

# Chronic Gastritis

By sourabh sharma

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# Definition

The chronic  
inflammation of gastric  
mucosa.

Anatomical areas	Functional areas
CARDIA	Oxyntic gland area (80%)
FUNDUS	
BODY	
ANTRUM	Pyloric gland area (20%)

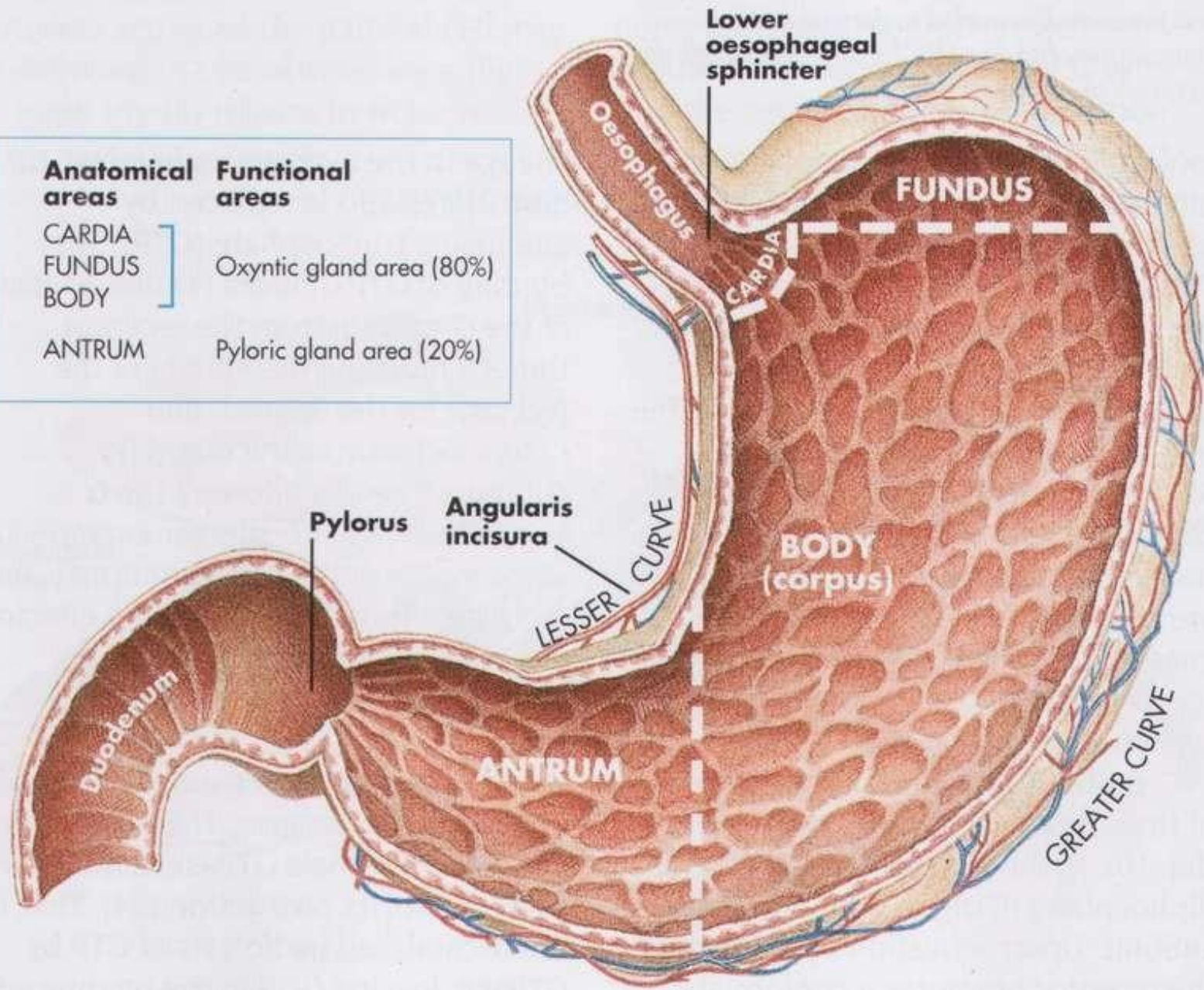
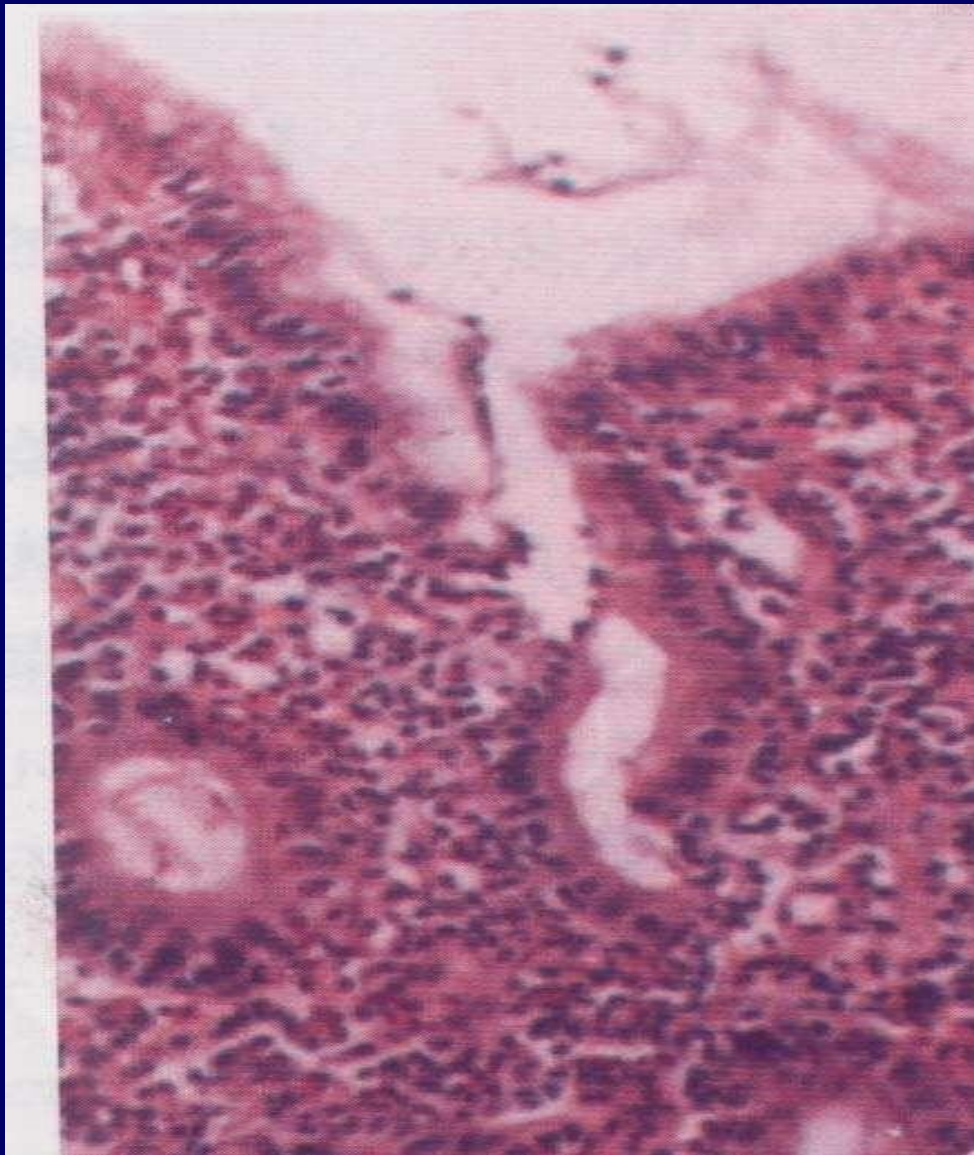


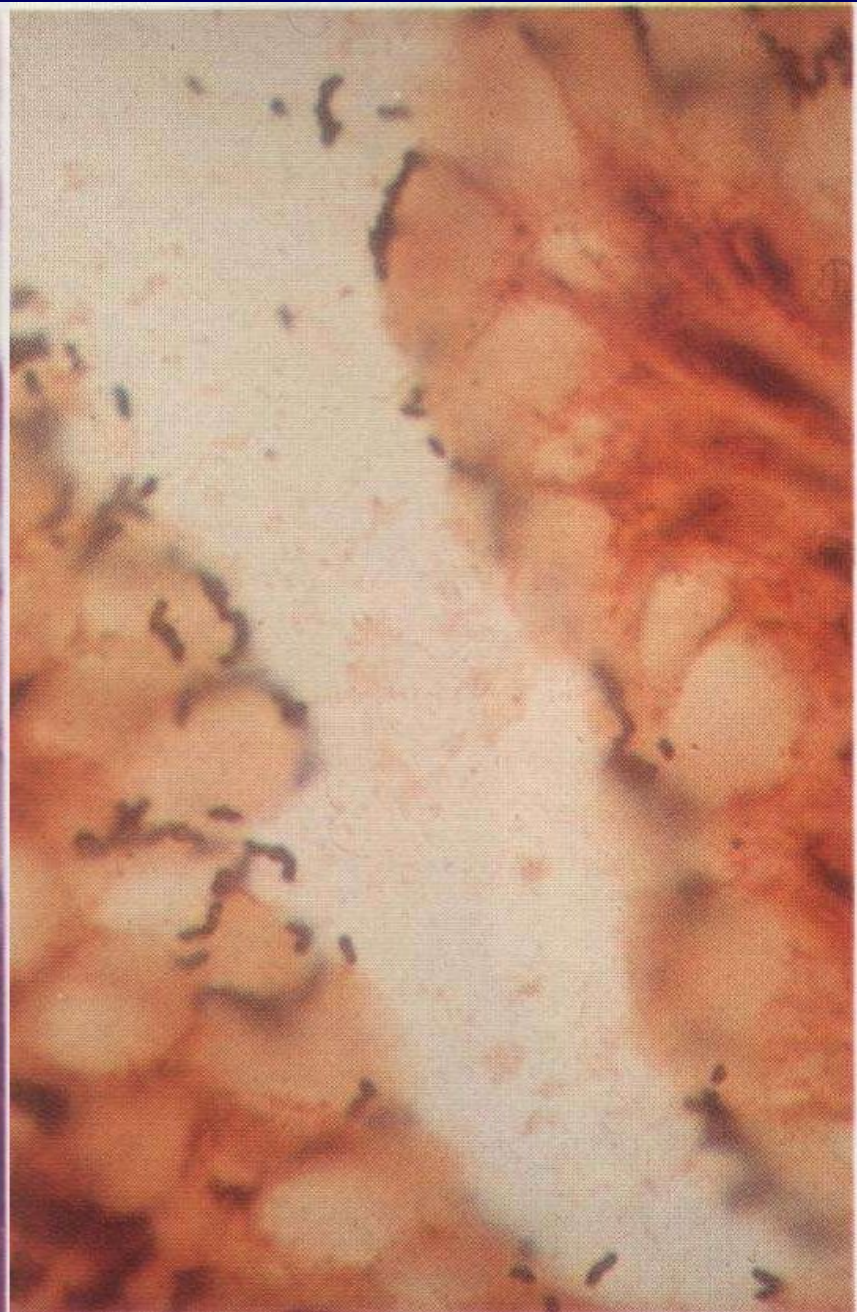
Fig. 3. Gross anatomical and functional areas of the stomach. Parietal cells are located in the oxyntic gland area, whereas gastrin cells are located in the pyloric gland area.

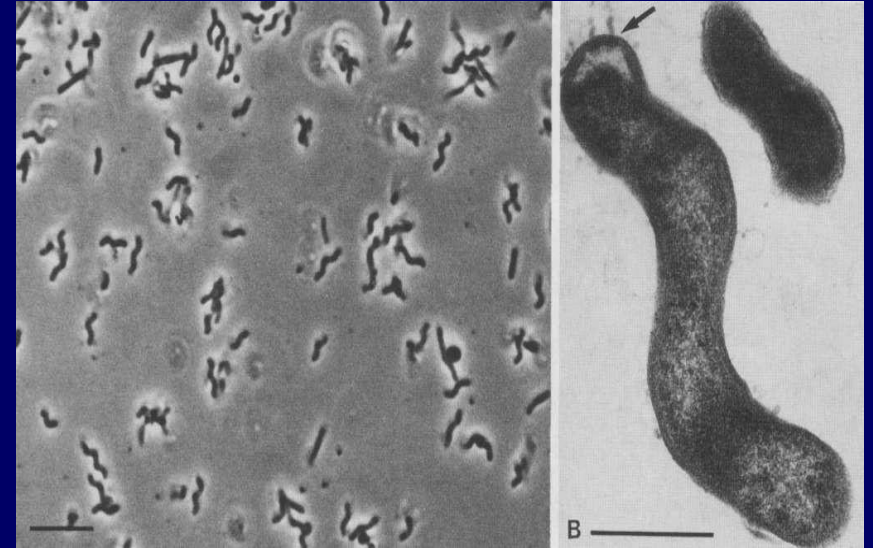
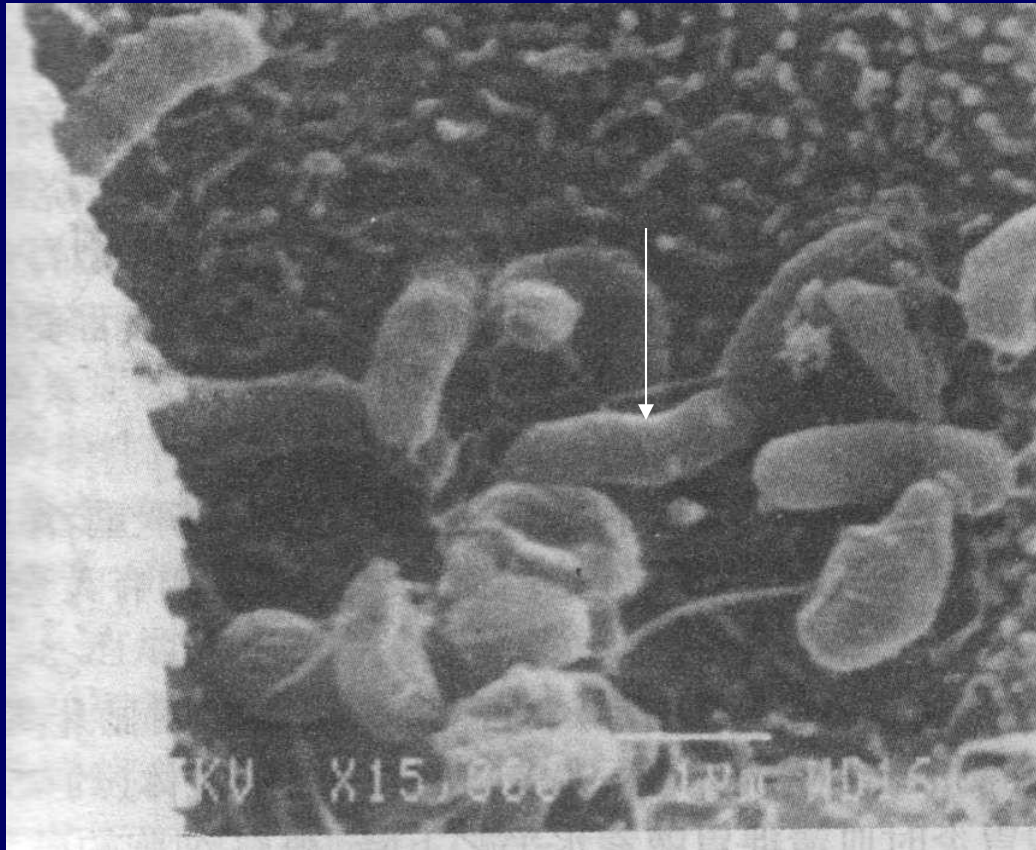


**Chronic gastritis**

# Etiology

- *Helicobacter pylori*  
infection





***Helicobacter pylori***

# Etiology

- **auto-immunologic factor**

high positive rate (90%) of serum anti-parietal cell antibody (APCA)

animal model: gastritis induced by injecting APCA repeatedly

high positive rate (75%) of serum anti-intrinsic factor antibody



## Other factors

reflux of duodenal juice

incompetence of pyloric sphincter

post operate stomach

alcohol

heavy salty foods

aging

portal hypertension

# Classification of chronic gastritis

- Chronic antral gastritis  
(Type B gastritis)

*H. Pylori* infection (90%)

NSAIDs

alcohol

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# Classification of chronic gastritis

- Chronic corpus gastritis (Type A gastritis)

auto-immunologic factors

Chronic pangastritis

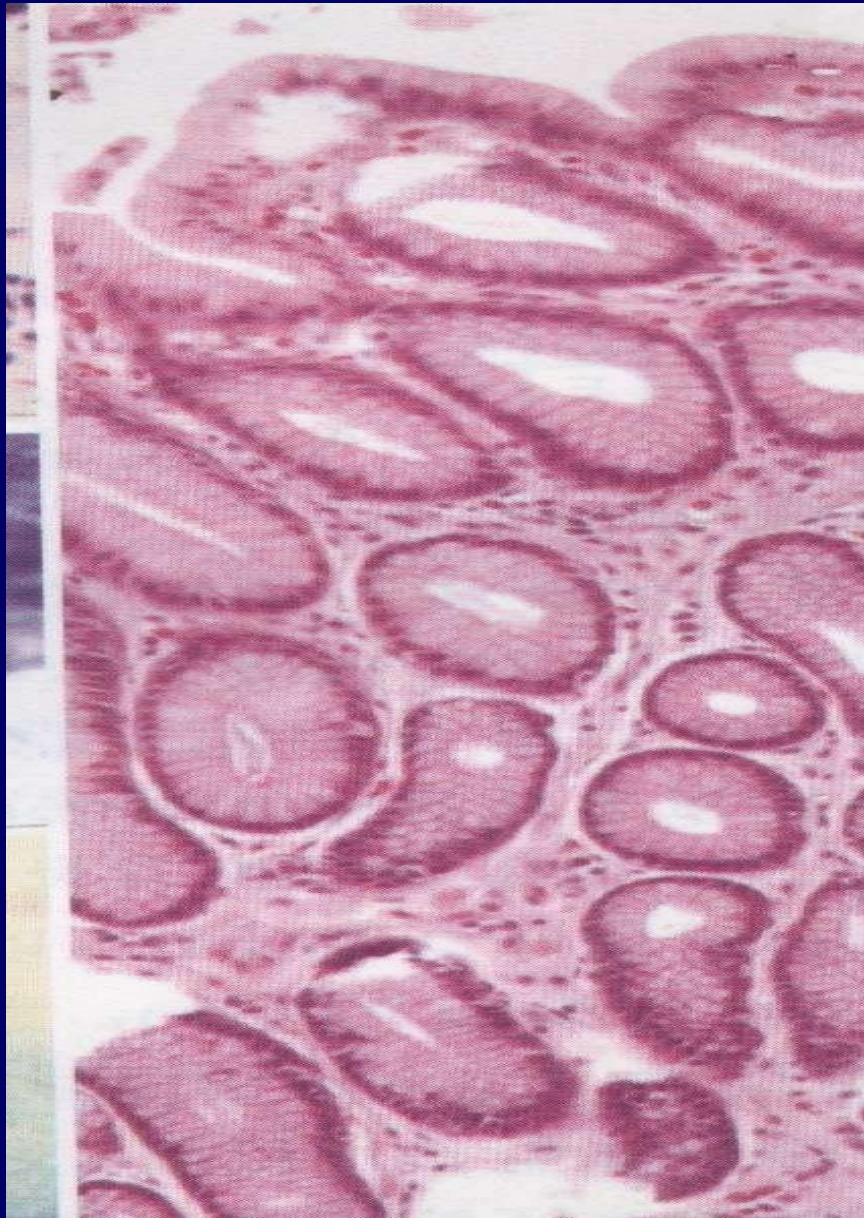
# Histology

Chronic superficial gastritis

Chronic inflammation

without

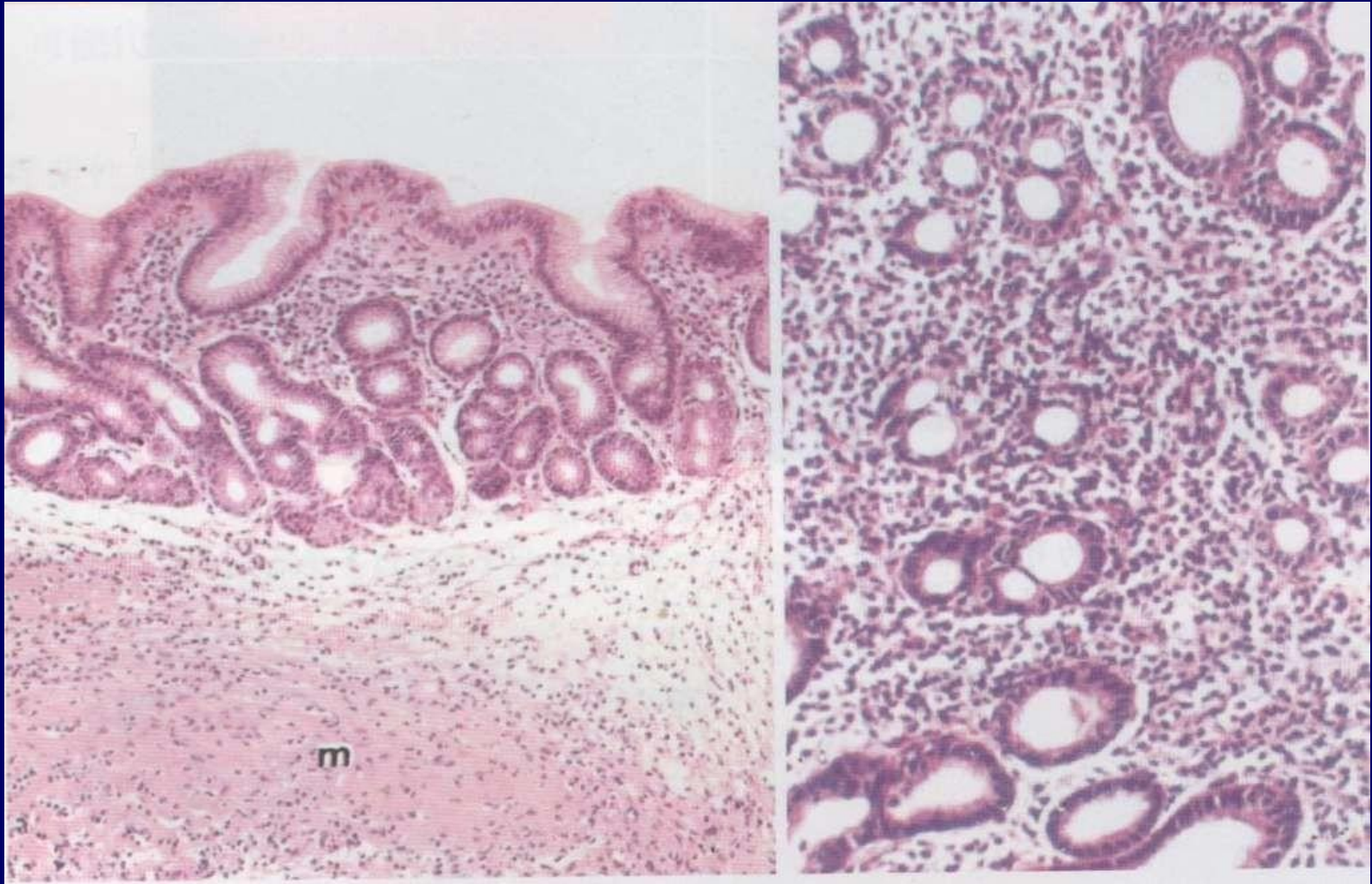
glandular atrophy



Chronic  
superficial  
gastritis

# **Chronic atrophic gastritis**

Chronic inflammation with  
glandular atrophy



**Chronic atrophic gastritis**

# Chronic gastritis

Active stage:

with polymorphous nuclear neutrophils  
infiltration

Quiescent stage:

without polymorphous nuclear neutrophils  
infiltration

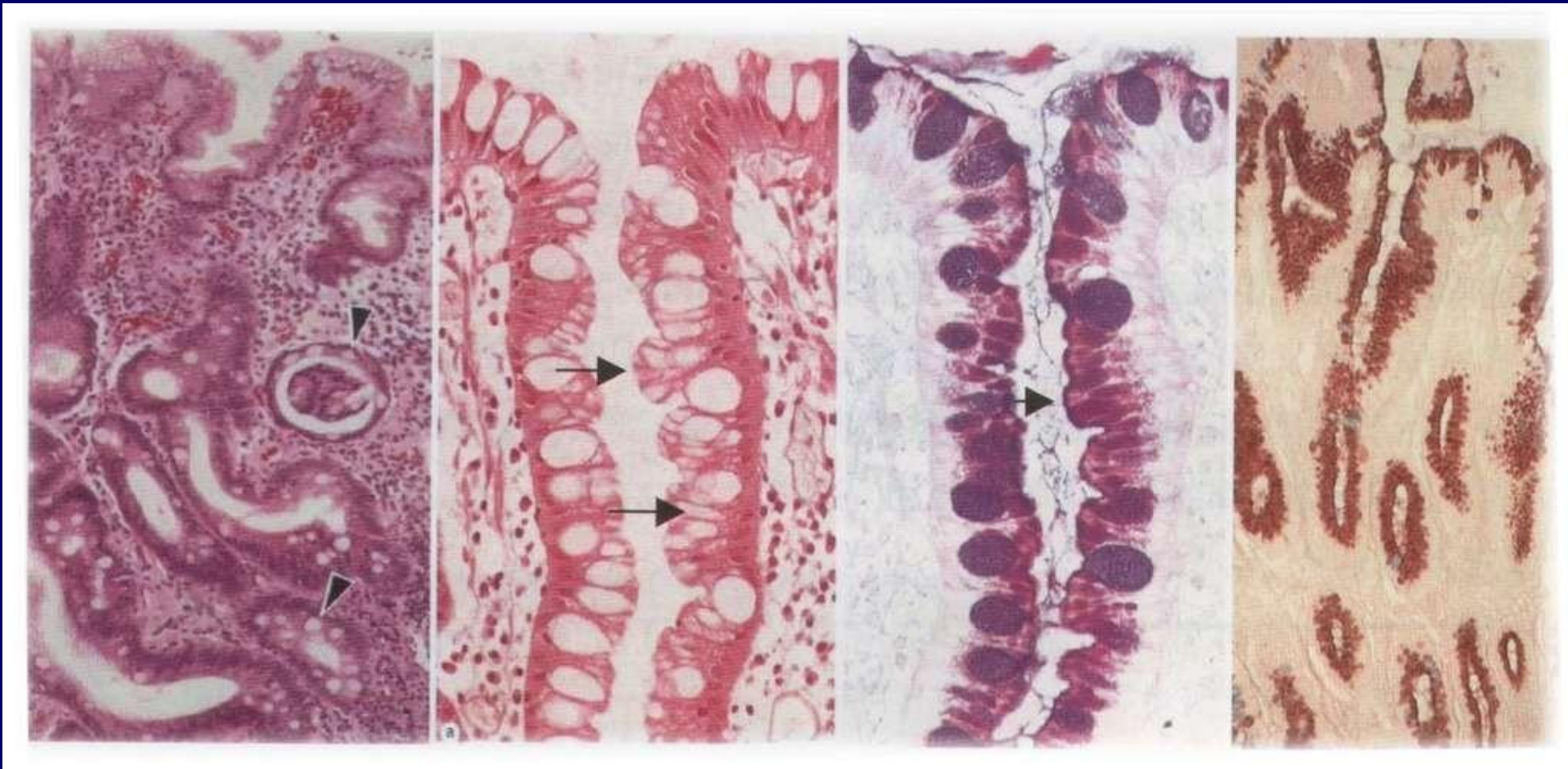


# Chronic gastritis

With

- Metaplasia: intestinal

Pseudopyloric



**Intestinal metaplasia**

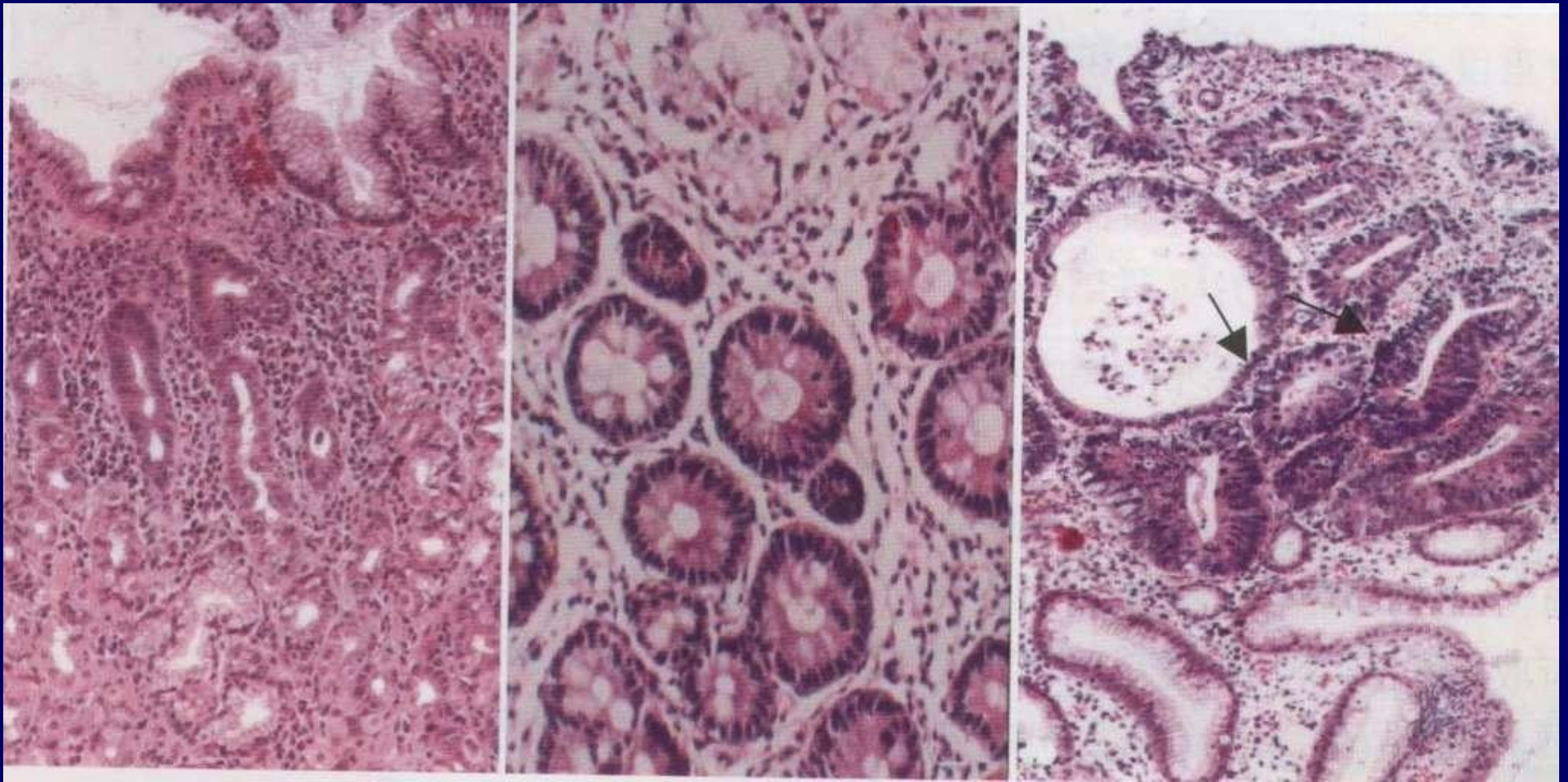
**chronic gastritis with**

**Dysplasia**

mild,

moderate,

severe



**Chronic gastritis with dysplasia**

# Clinical Manifestations

- Most of patients are asymptomatic
- Dyspepsia: upper abdominal pain or discomfort (bloating, belching, nausea vomiting)
- The symptoms are not specific
- No typical physical sign found

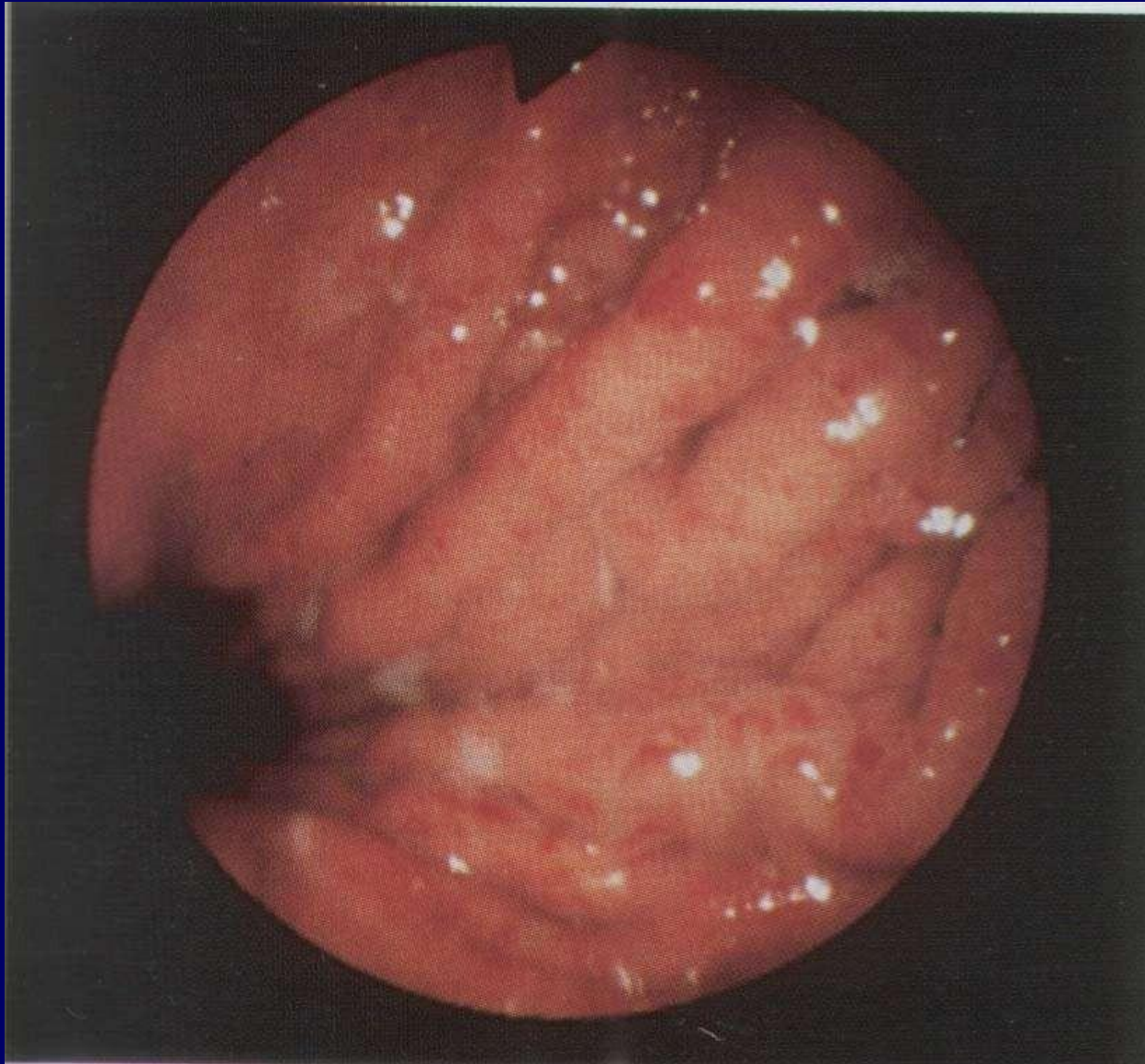
# Laboratory and other examinations

- Endoscopy examination with mucosal biopsy  
the most reliable method for diagnosis

# Endoscopy examination

superficial gastritis

edema, erythema, exudate,  
erosion



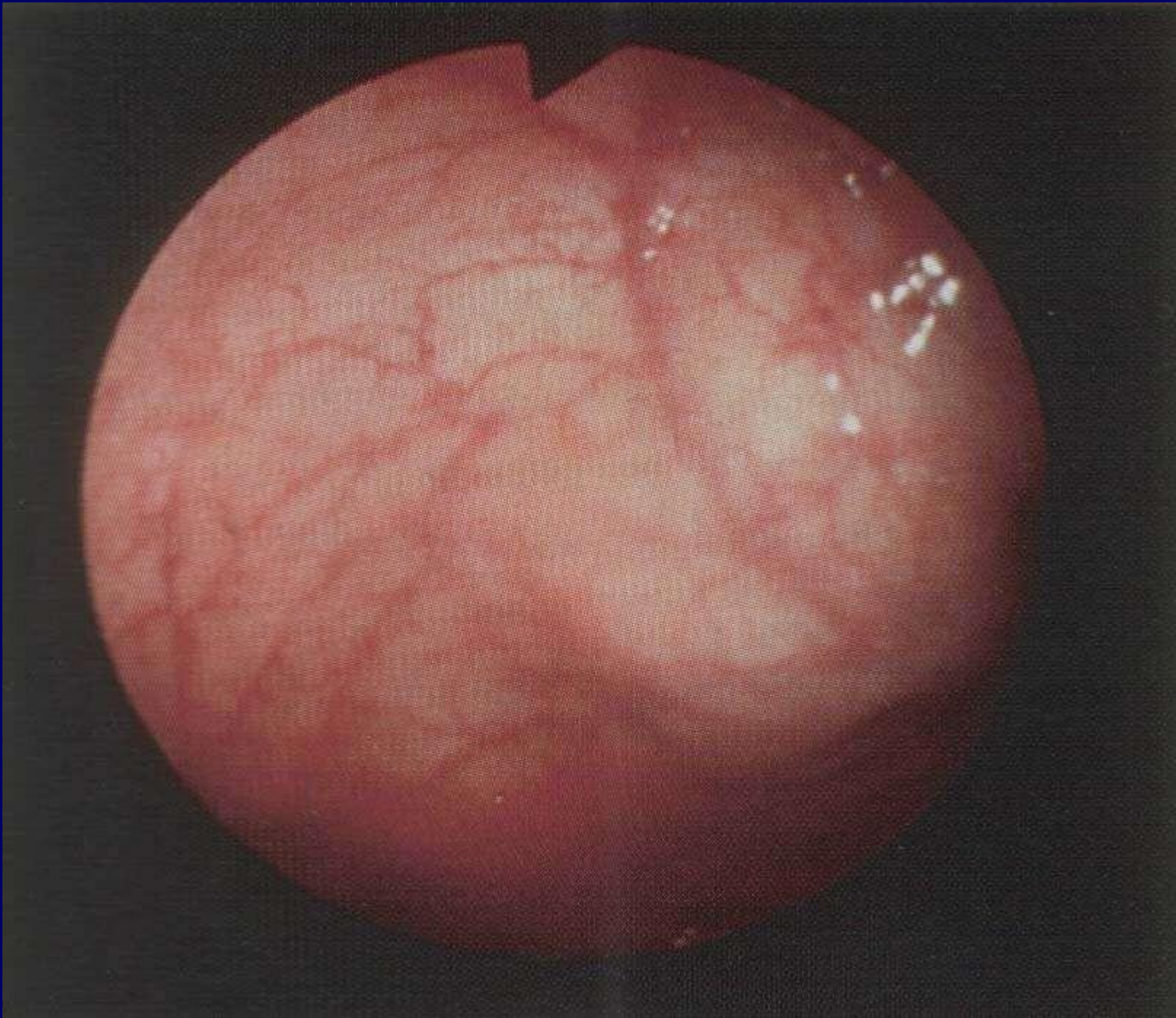
Edema  
erythema



# Atrophic gastritis

grey, reduced mucosa folds,

submucosal visible vessels



Visible  
vessels

## Note

imperfect co-relations between endoscopic appearances and histological classification, the final diagnosis should be made by histological examination.

# Detection of *H. pylori*

- Urease test
  - Histology
  - Microbiological culture
  - Breath test:  $^{13}\text{C}$ -urea  
 $^{14}\text{C}$ -urea
- Serology: IgG

# Gastric acid secretion and serology tests

## Type A gastritis

- serum anti-parietal cell antibody: (+)
- serum anti-intrinsic factor antibody: (+)
- serum gastrin: ↑
- basic and maximal (pengastrin stimulated) gastric acid secretion : ↓

# Type B gastritis

- usually in normal range of above tests
- gastrin and gastric acid secretion decreased when severe atrophy occurred

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## Type A

## Type B

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Etiology

auto immunity

H.p.

Environment factors

Topography corpus

antrum

BAO & MAO

↓

-- or ↓ ↑

gastrin ↑

--

APCA +

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Associated

pernicious anemia

peptic ulcer

disease

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# Treatment

- Exclusion of causative factors  
smoking, alcohol, NSAIDs, salty food
- Medication  
relief of pain: antacid, H<sub>2</sub>-RA, PPI  
prokinetic agents: to enhance gastric motility, promote gastric empty



- **Anti-microbiotic therapy**

There are still some arguments

No a effective, low side-effect and  
low price medicine available

Eradication of Hp is not means  
improvement of symptoms

# How should we do?

## Eradication of H.p.

- When the patient's symptom is intractable
- When the patient from the high risk area of gastric cancer
- When the patient wishes to be treated

# Surgery

Only in chronic gastritis with severe dysplasia, because of dysplasia is regarded as precancerous lesion and it is hard to distinguish severe dysplasia and early gastric cancer

# Prognosis

- Normal mucosa → CSG → CAG<sup>?</sup> → GC
- There is a risk from atrophic gastritis (especially with moderate to severe dysplasia) developing to gastric cancer.

# Summary

- Chronic gastritis is a common disease
- Type A : auto immunity
- Type B : H. Pylori infection
- Symptom : dyspepsia
- Diagnosis : endoscopy with histology
- Treatment : symptoms relief
- Prognosis