

Chronic Gastritis

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La1 174(2)

Definition

The chronic
inflammation of gastric
mucosa.

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

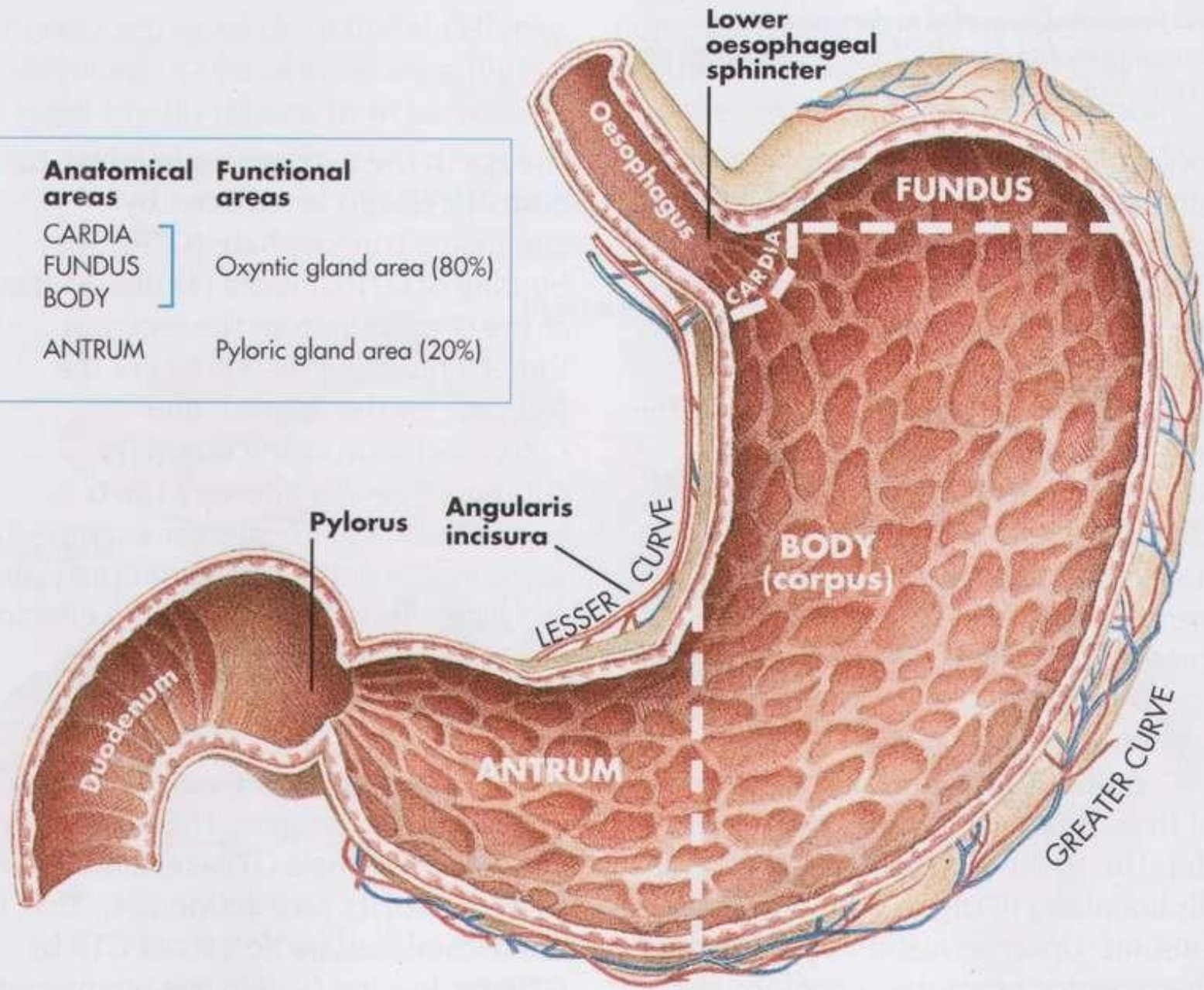
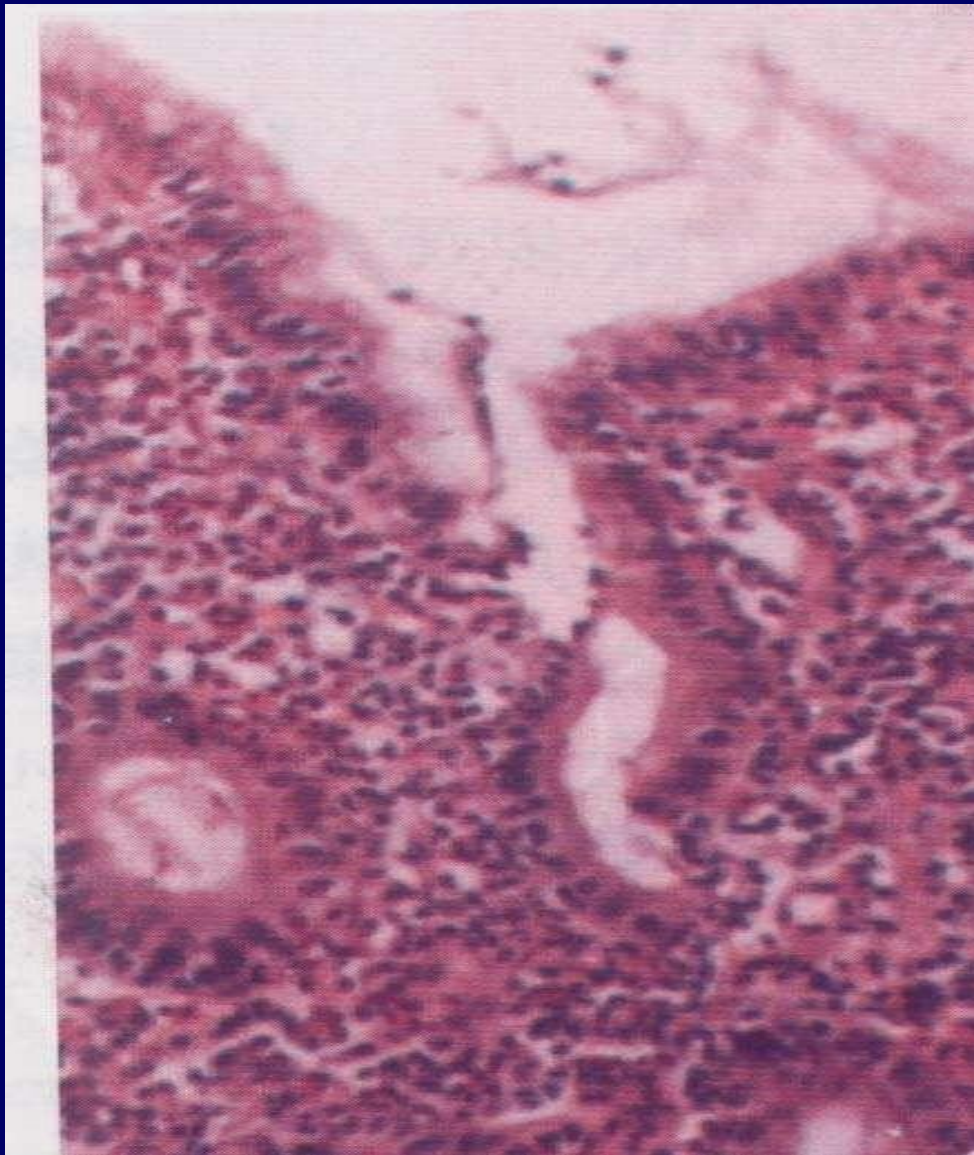


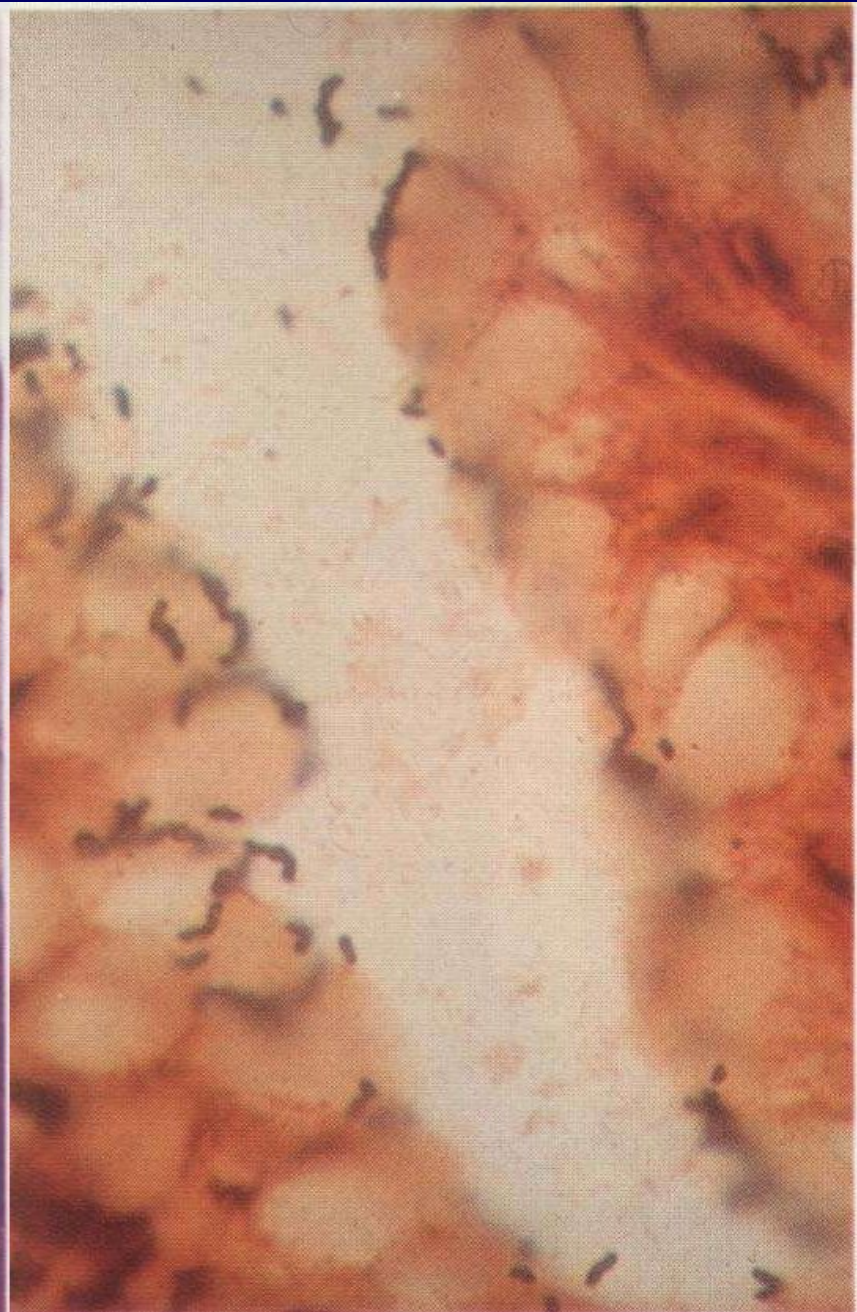
Fig. 3. Gross anatomical and functional areas of the stomach. Parietal cells are located in the oxyntic gland area, whereas gastrin cells are located in the pyloric gland area.

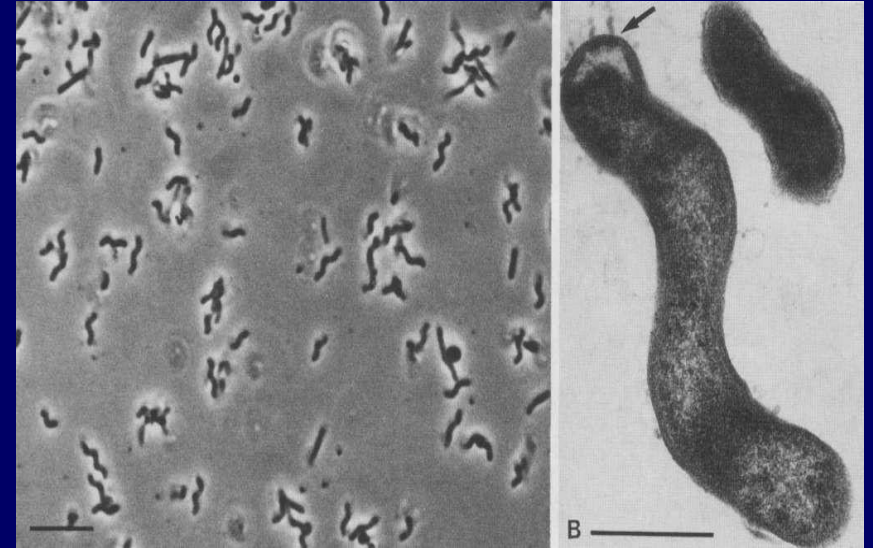
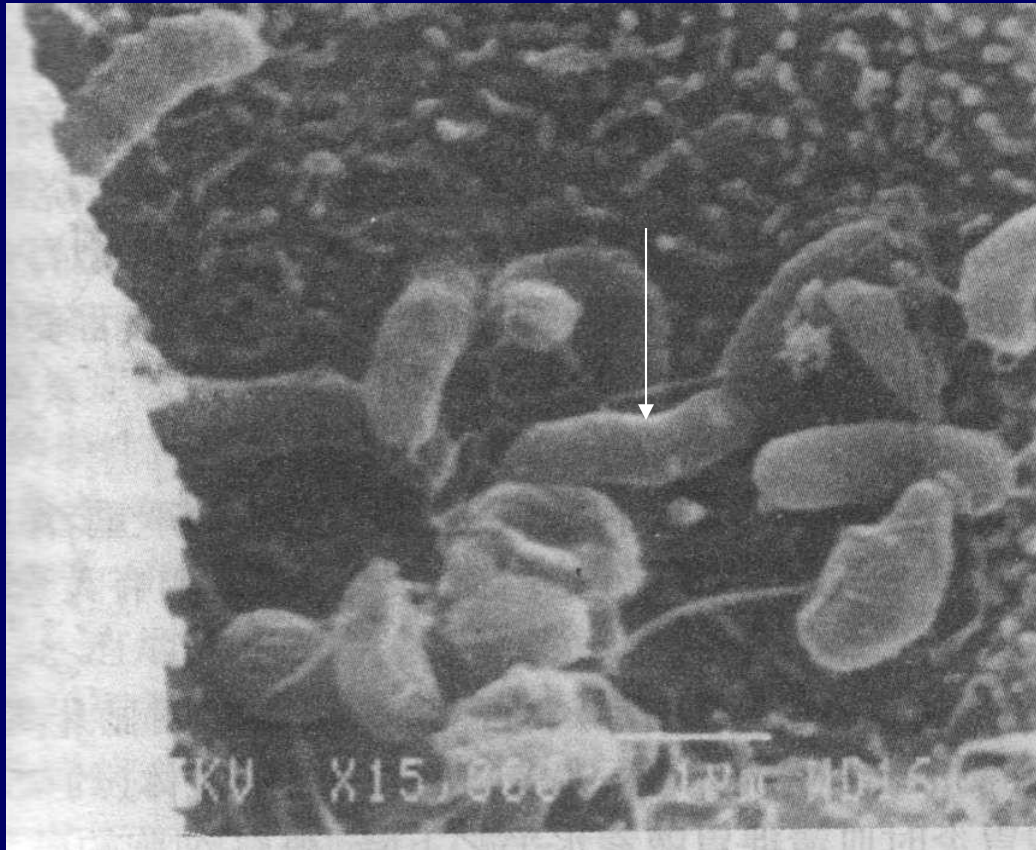


Chronic gastritis

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

.....

Classification of chronic gastritis

- Chronic corpus gastritis (Type A gastritis)

auto-immunologic factors

Chronic pangastritis

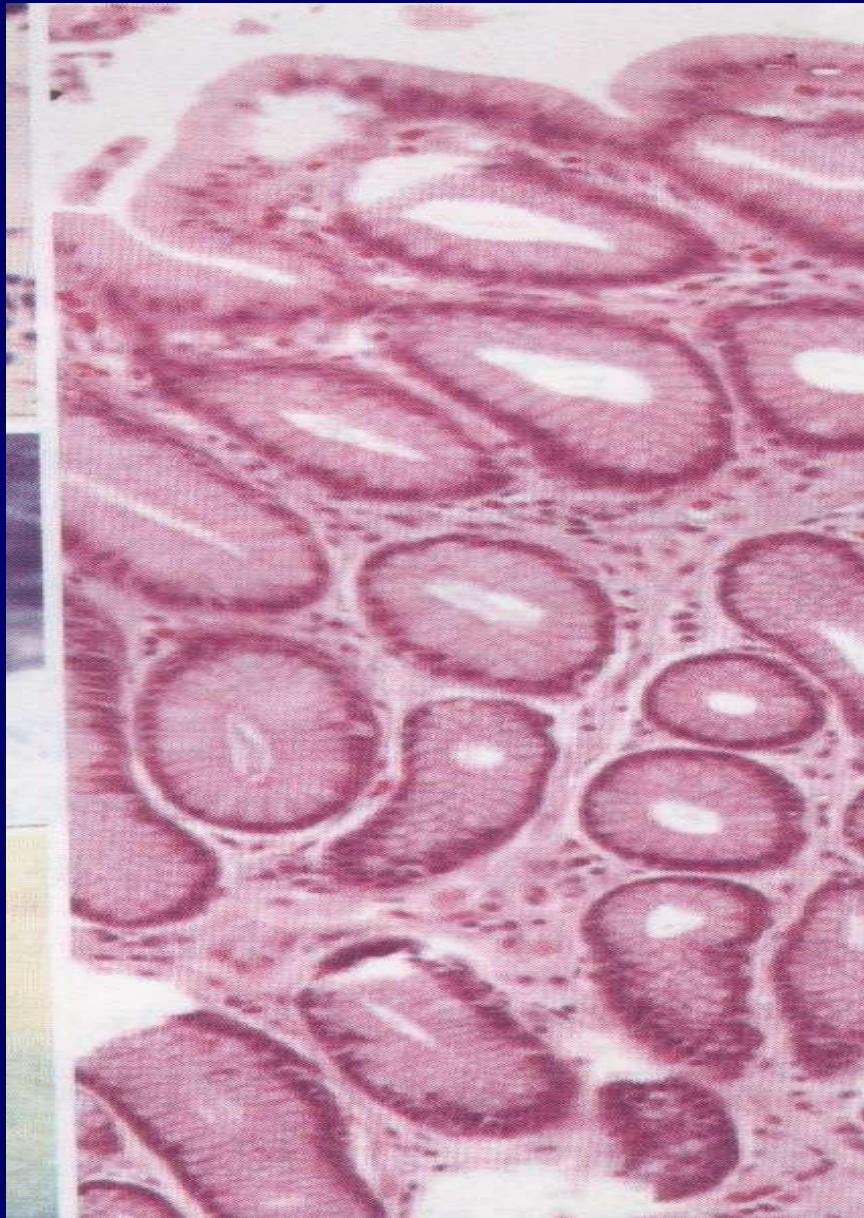
Histology

Chronic superficial gastritis

Chronic inflammation

without

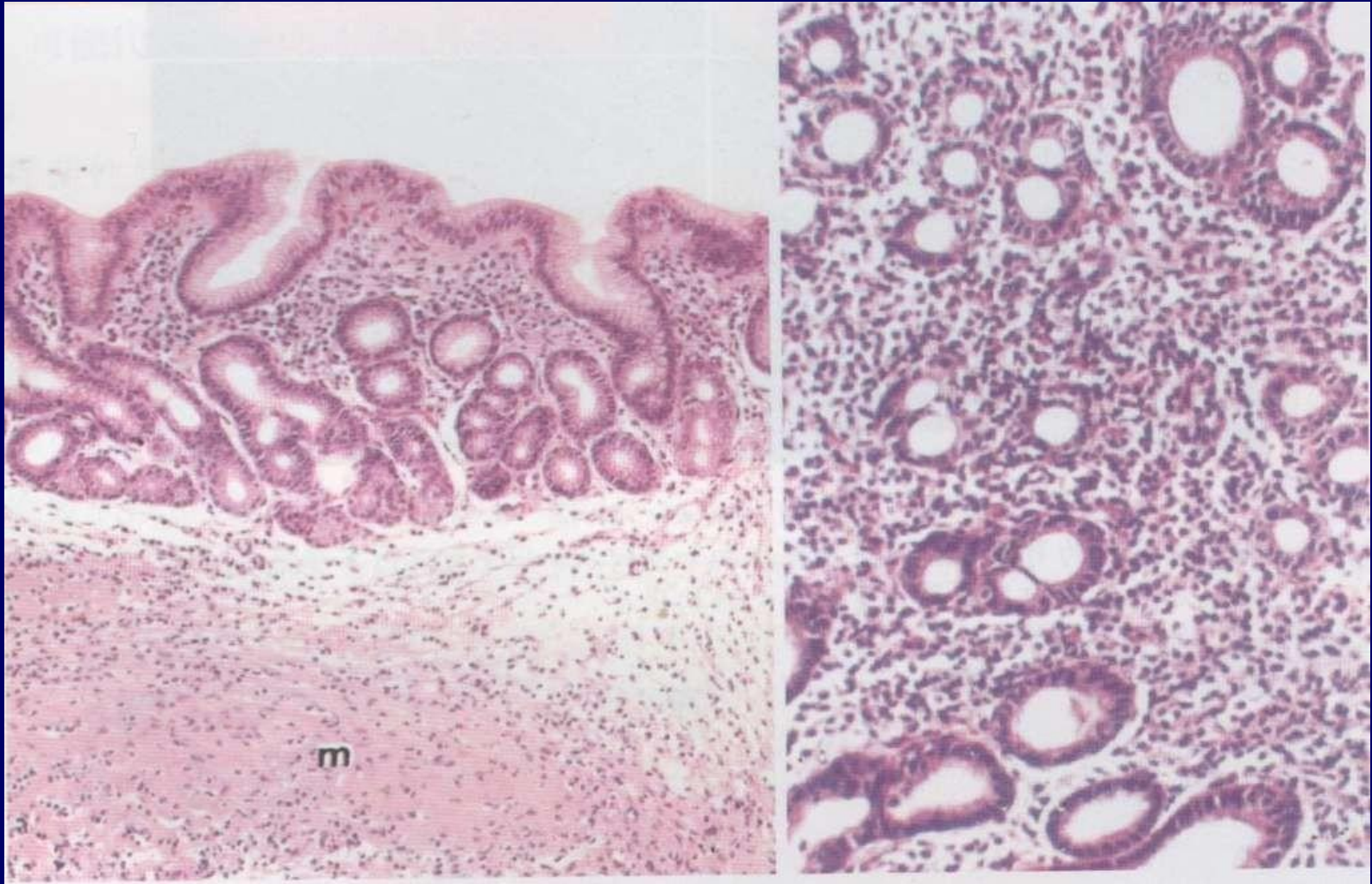
glandular atrophy



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:

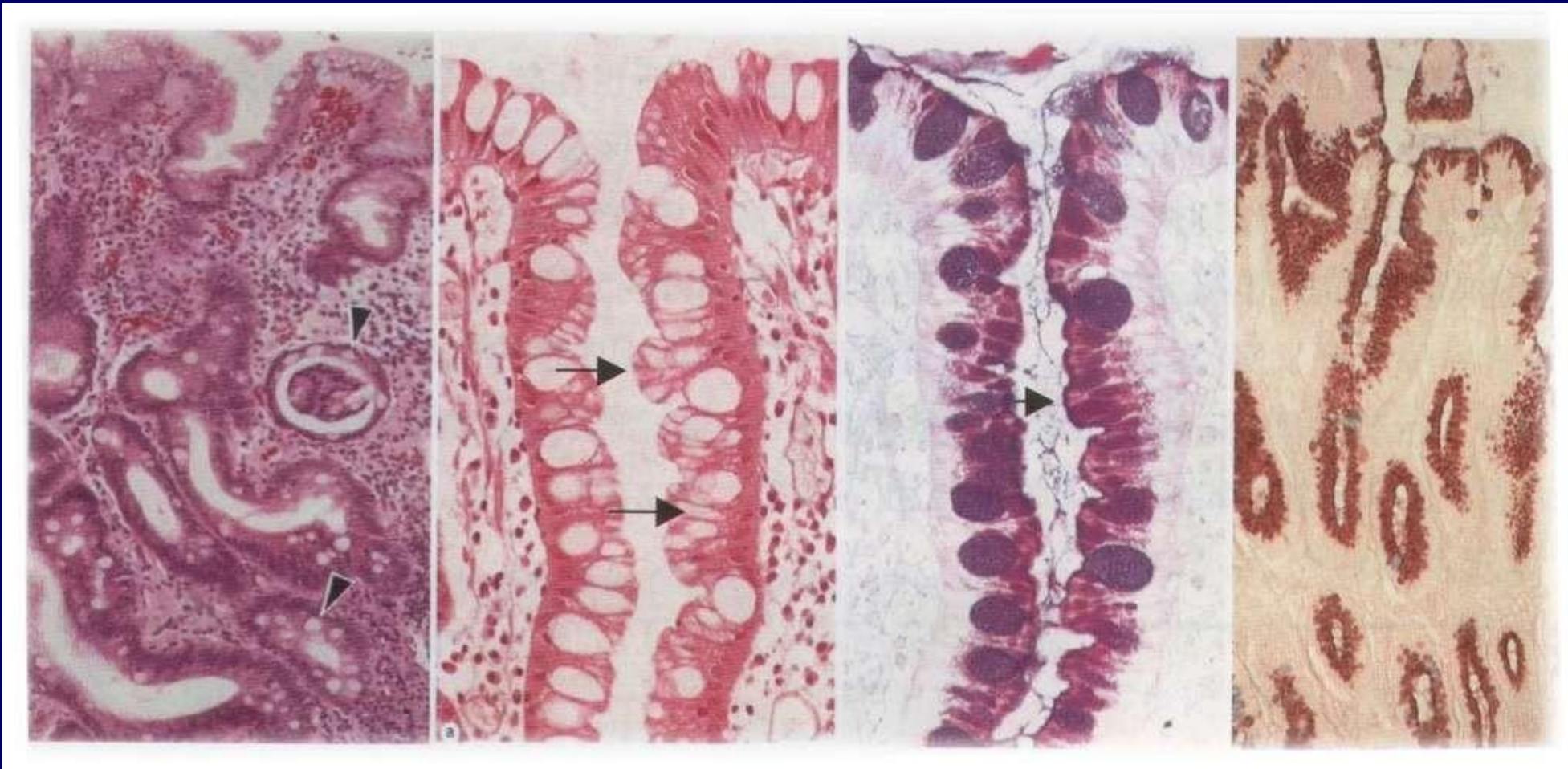
without polymorphous nuclear neutrophils
infiltration

Chronic gastritis

With

- Metaplasia: intestinal

Pseudopyloric



Intestinal metaplasia

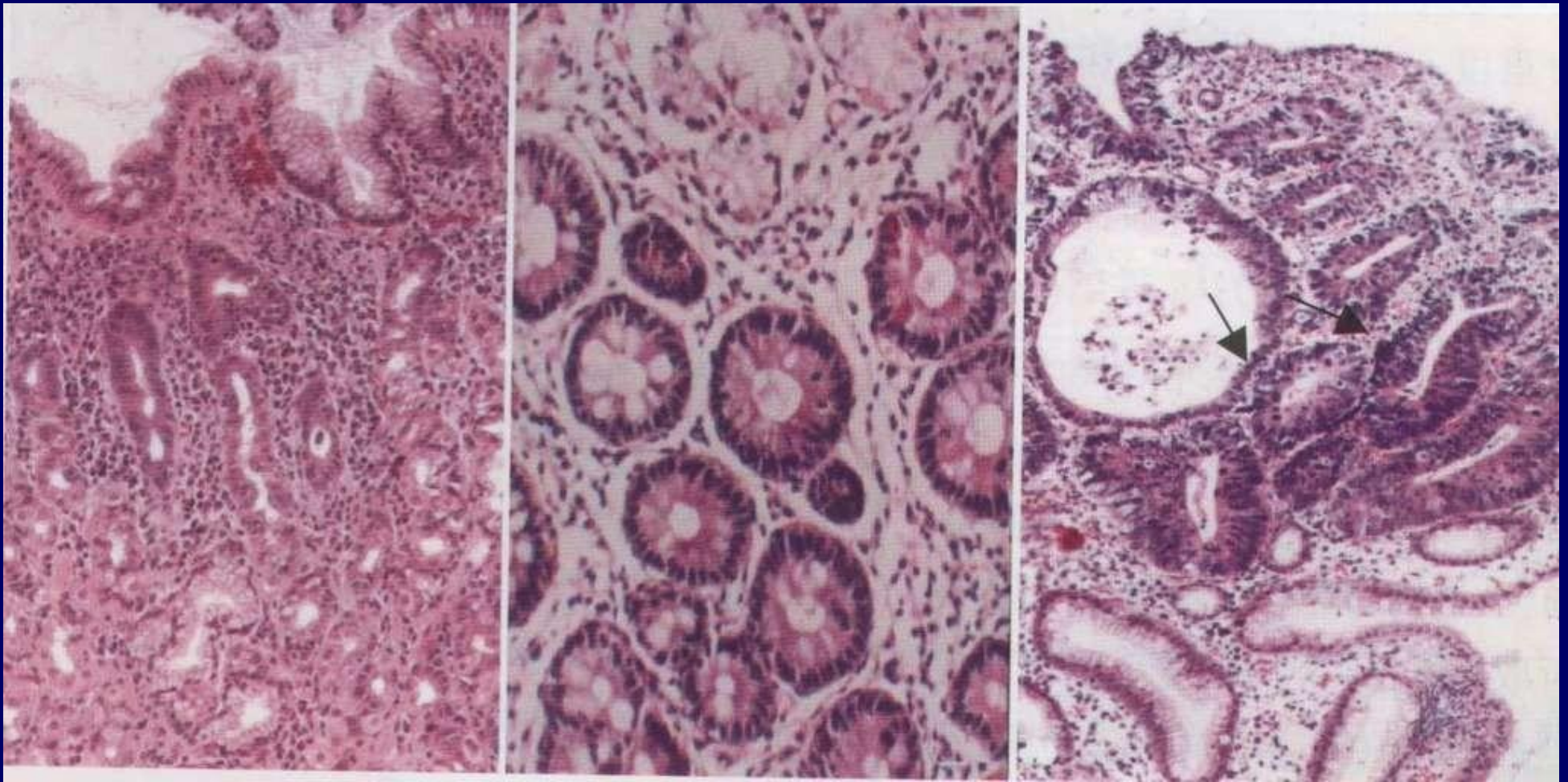
chronic gastritis with

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

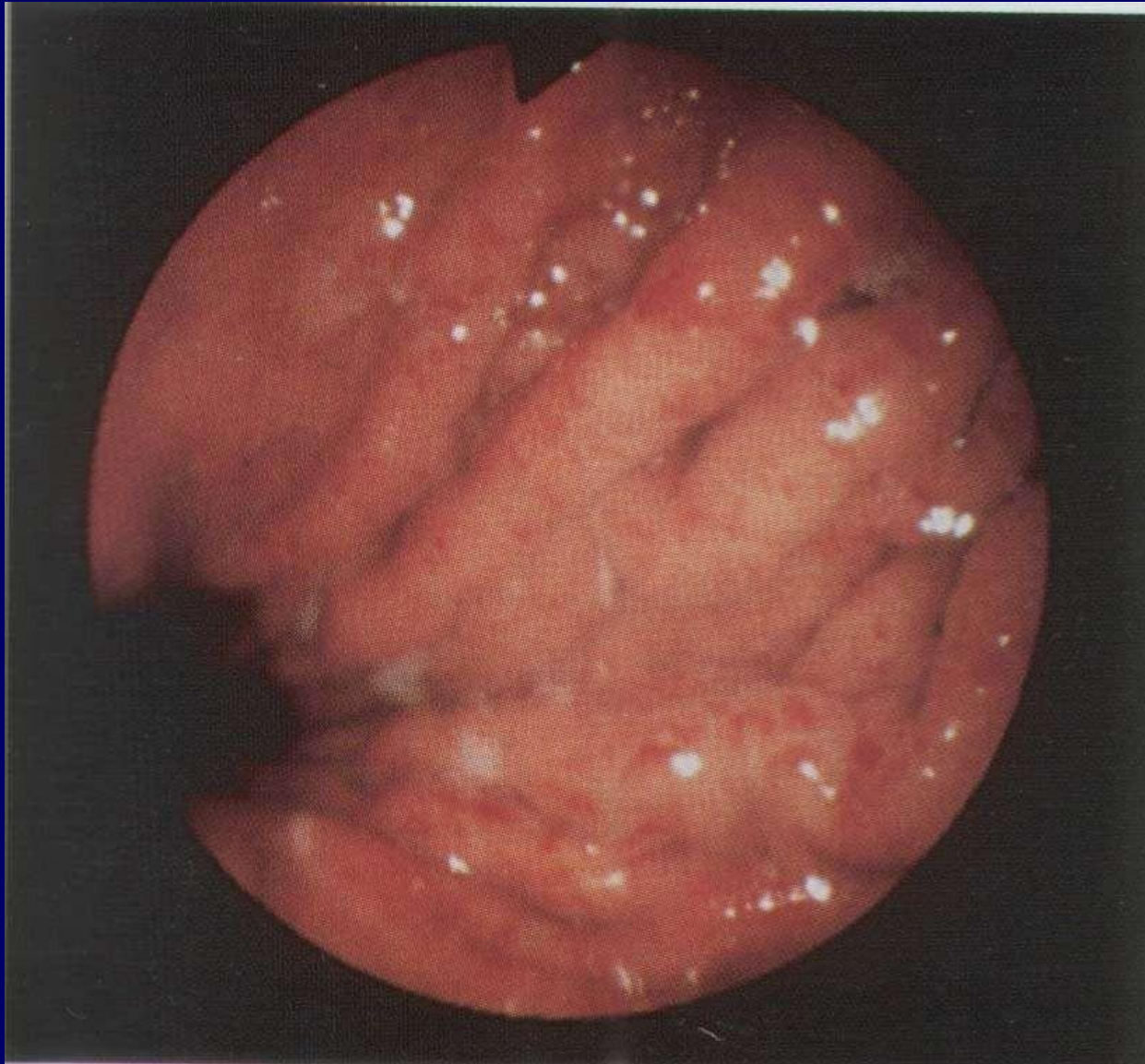
Laboratory and other examinations

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

Endoscopy examination

superficial gastritis

edema, erythema, exudate,
erosion

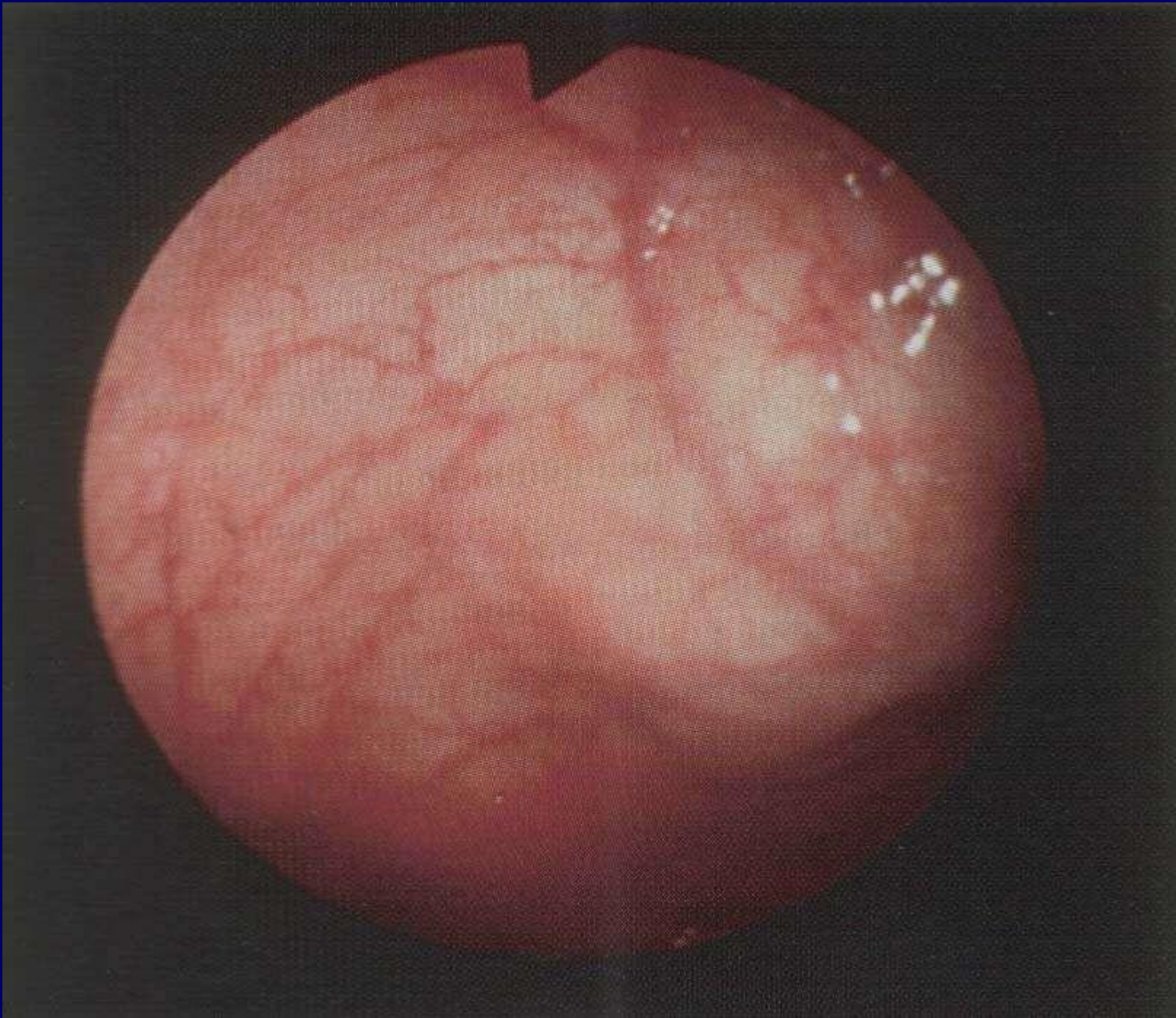


Edema
erythema

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}C -urea
 ^{14}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

Type A

Type B

Etiology

auto immunity

H.p.

Environment factors

Topography corpus

antrum

BAO & MAO

↓

-- or ↓ ↑

gastrin ↑

--

APCA +

--

Associated

pernicious anemia

peptic ulcer

disease

Treatment

- Exclusion of causative factors
smoking, alcohol, NSAIDs, salty food
- Medication
relief of pain: antacid, H₂-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[?] → 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