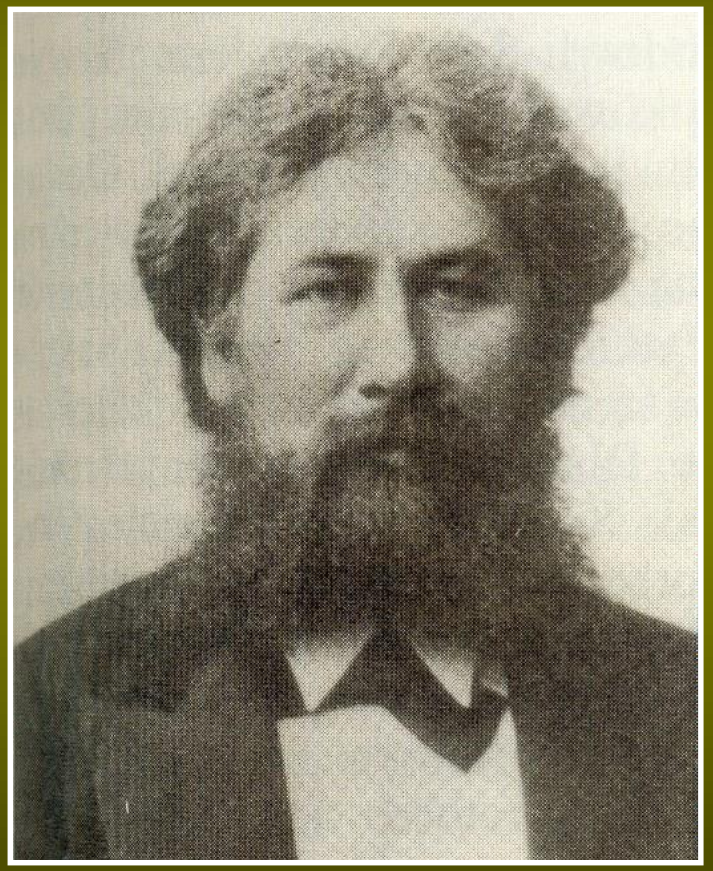
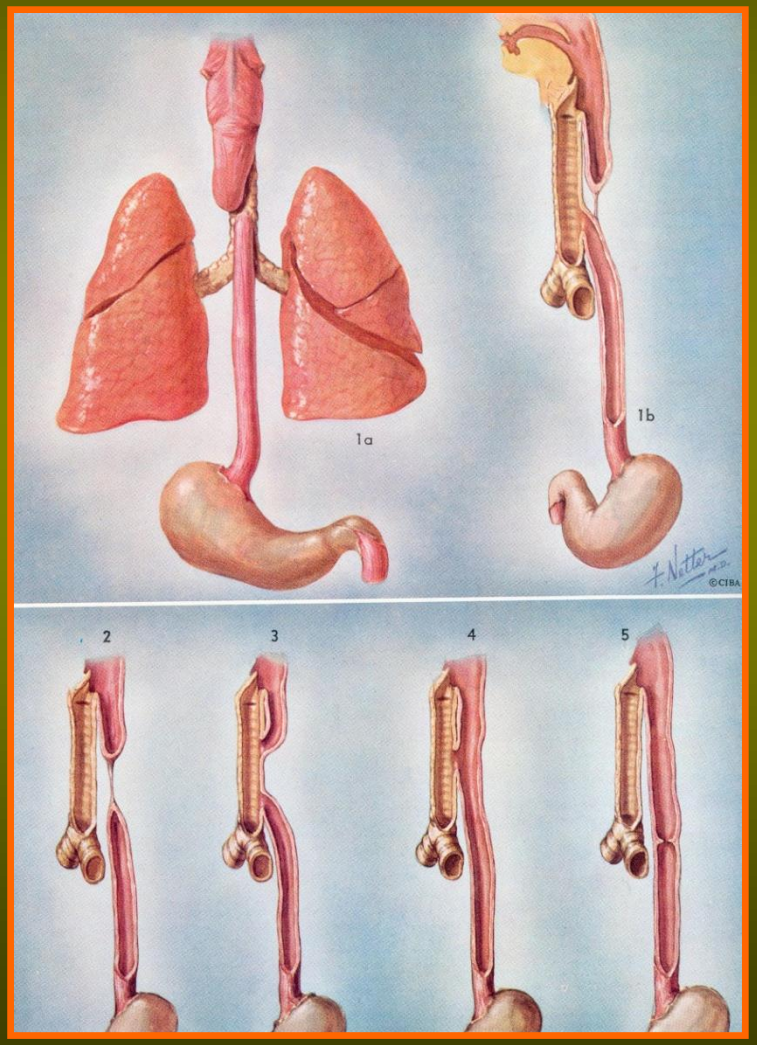
LECTURE 14



LUDWIK RYDYGIER
1850-1920

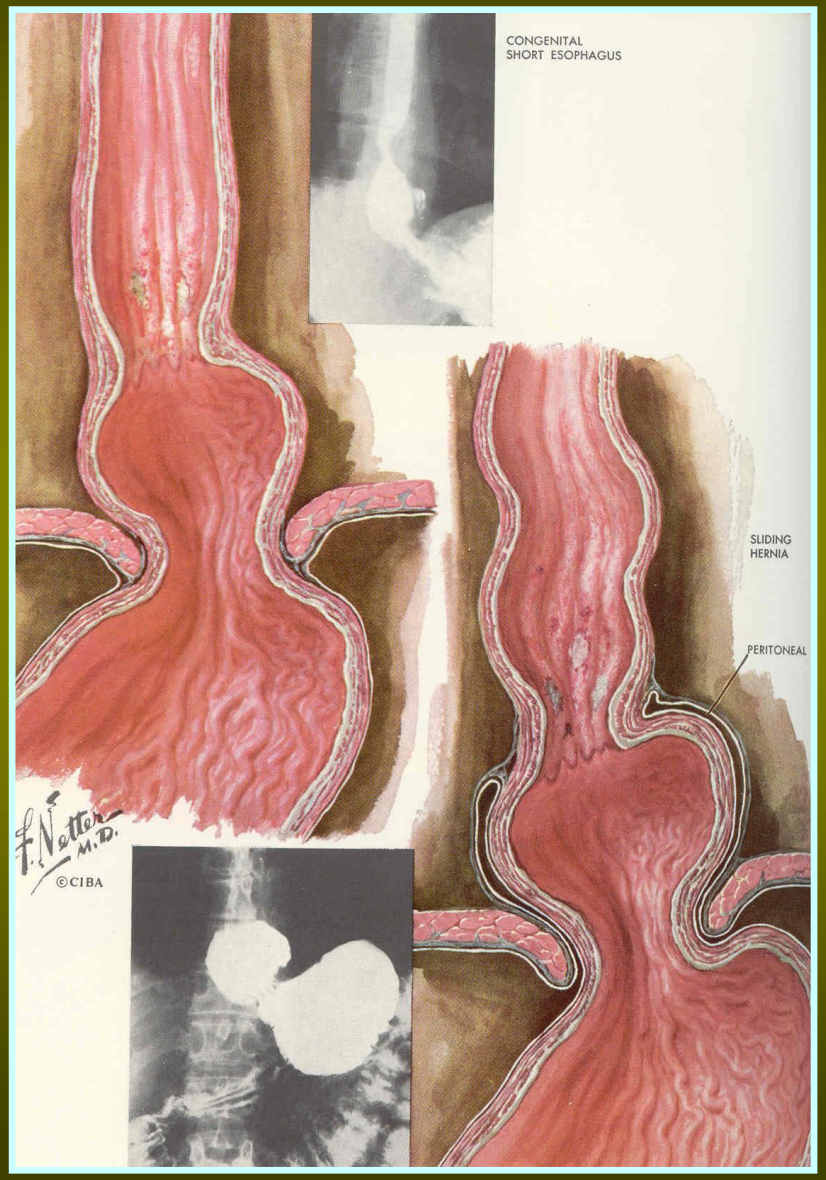
ESOPHAGUS PATHOLOGY



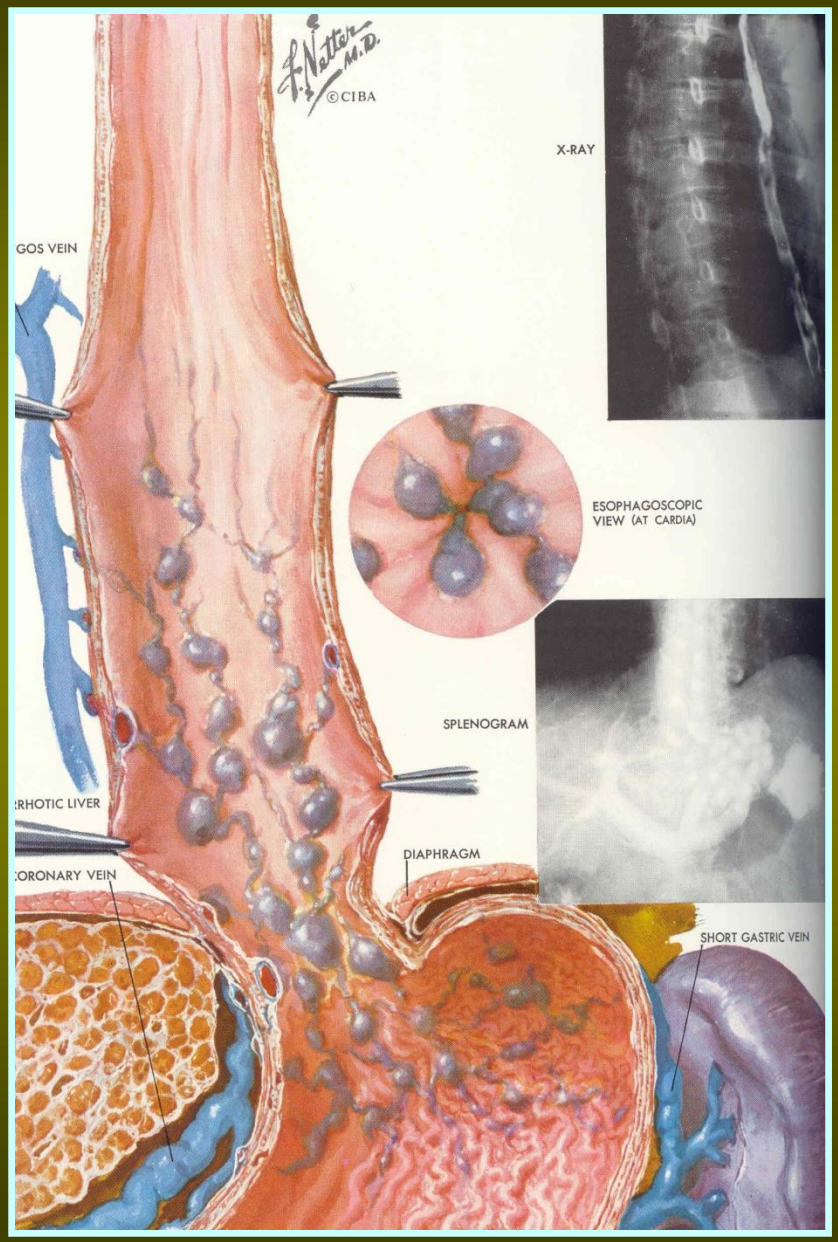
DISTURBANCES IN THE DEVELOPMENT OF THE ESOPHAGUS

MOSTLY COMBINED WITH DISTURBANCES OF THE TRACHEA DEVELOPMENT. PROMPT DIAGNOSIS AND SURGERY MAY SAVE LIFE OF NEWBORN.

ESOPHAGUS HERNIAS

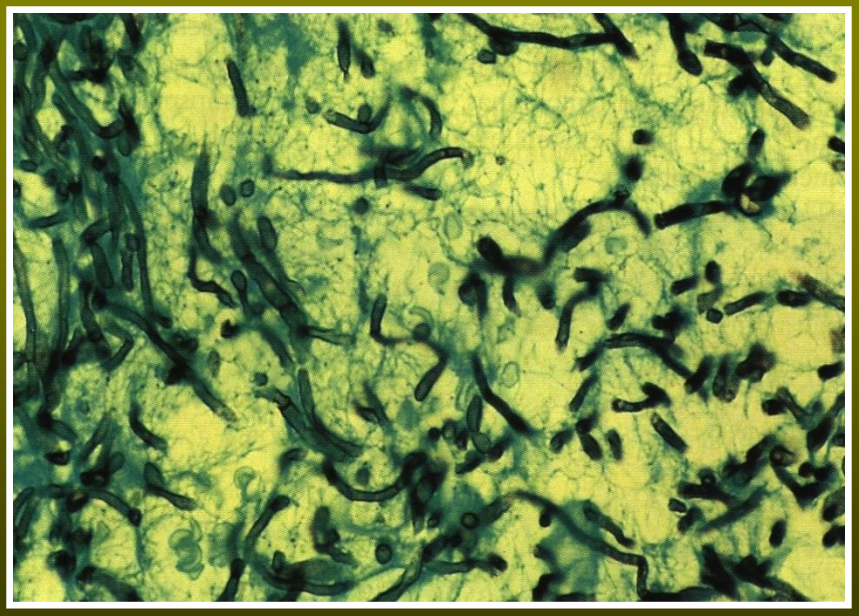


VARICES IN ESOPHAGUS

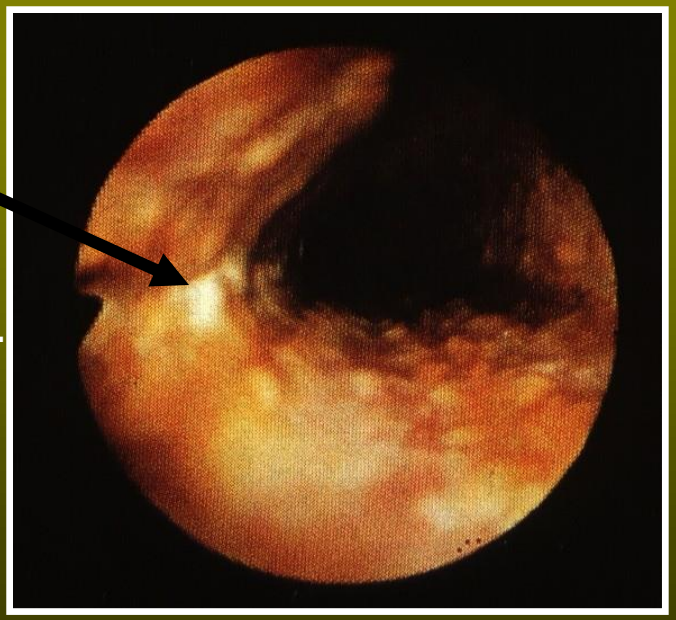


ESOPHAGITIS

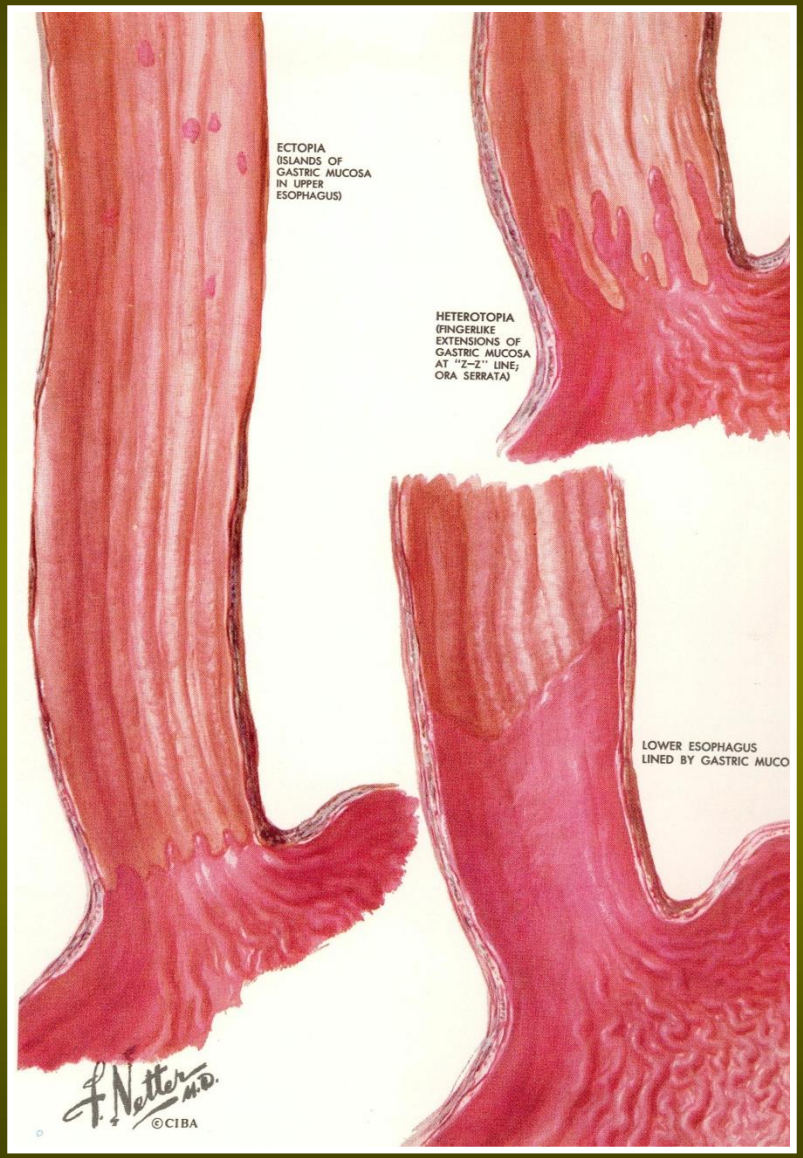
FIBRINOUS AND ULCERATING ESOPHAGITIS



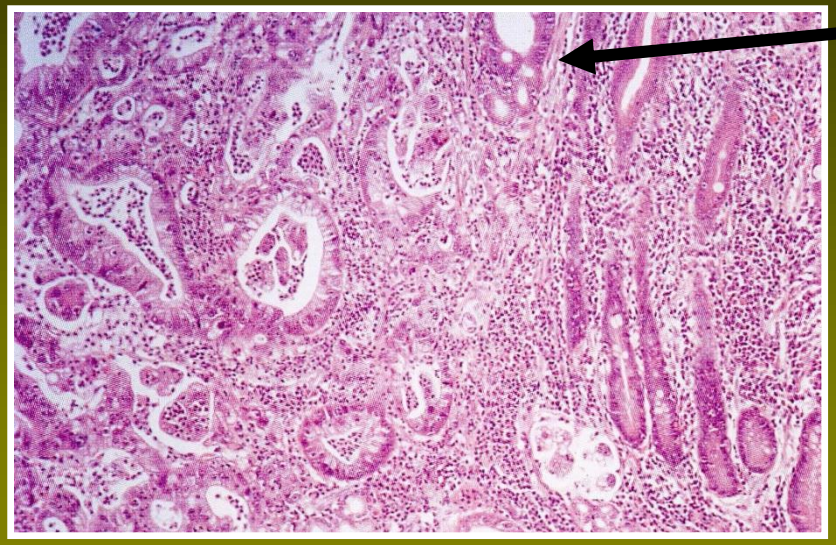
ESOPHAGEAL MONILIASIS



BARRETTS' ESOPHAGUS

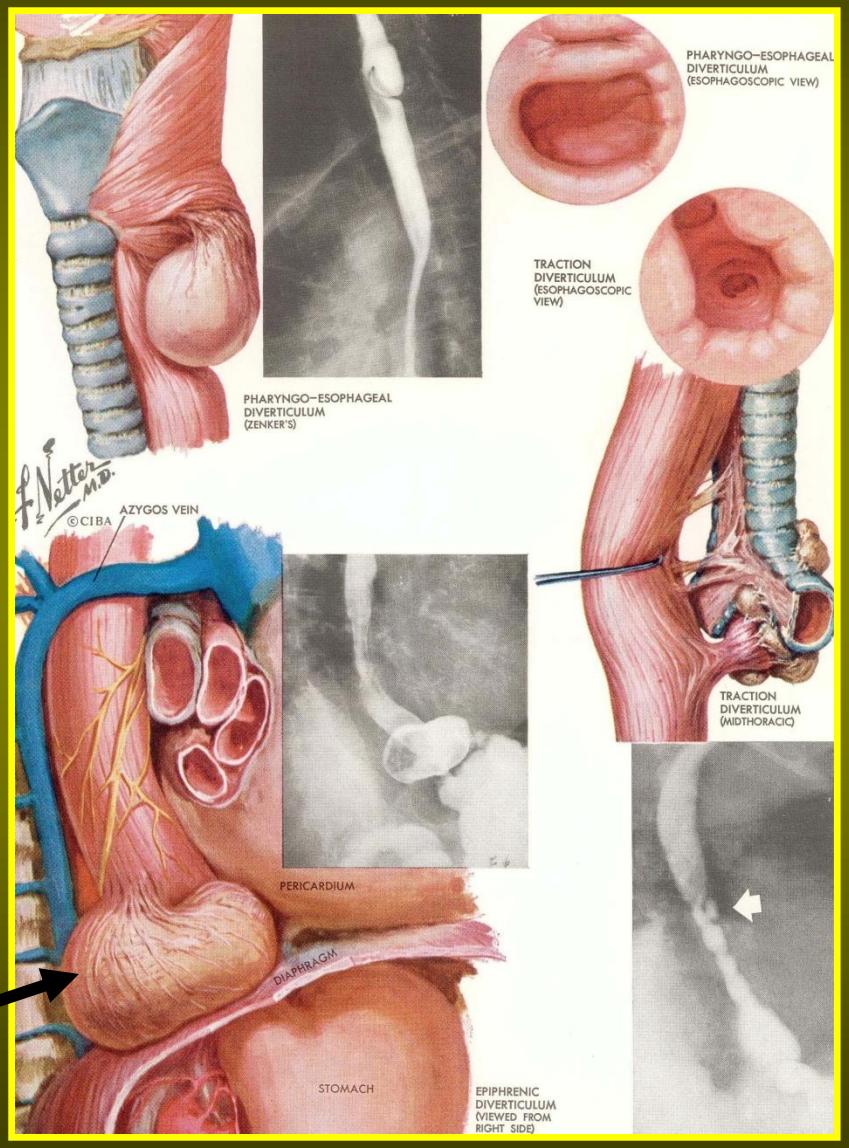


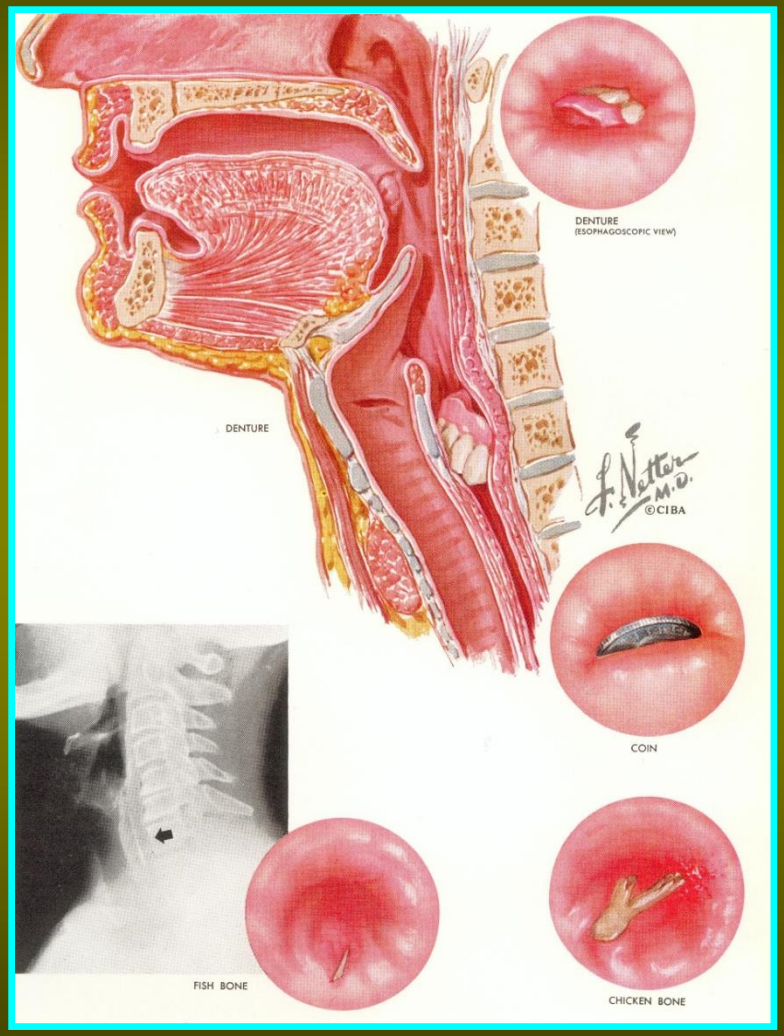
BARRETT ESOPHAGUS



BARRETT ESOPHAGUS
an acquired metaplasia, usually occurs post chronic gastro-esophageal reflux.

ESOPHAGEAL DIVERTICULA

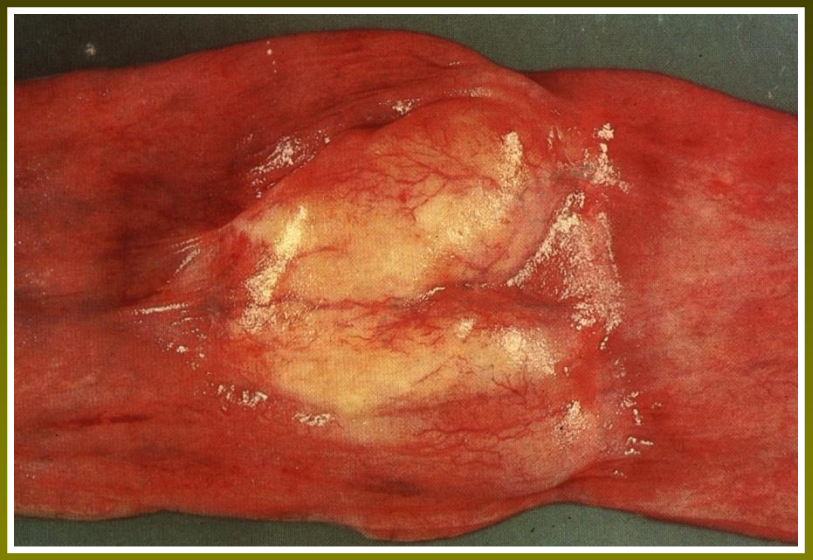




FOREIGN BODY IN ESOPHAGUS

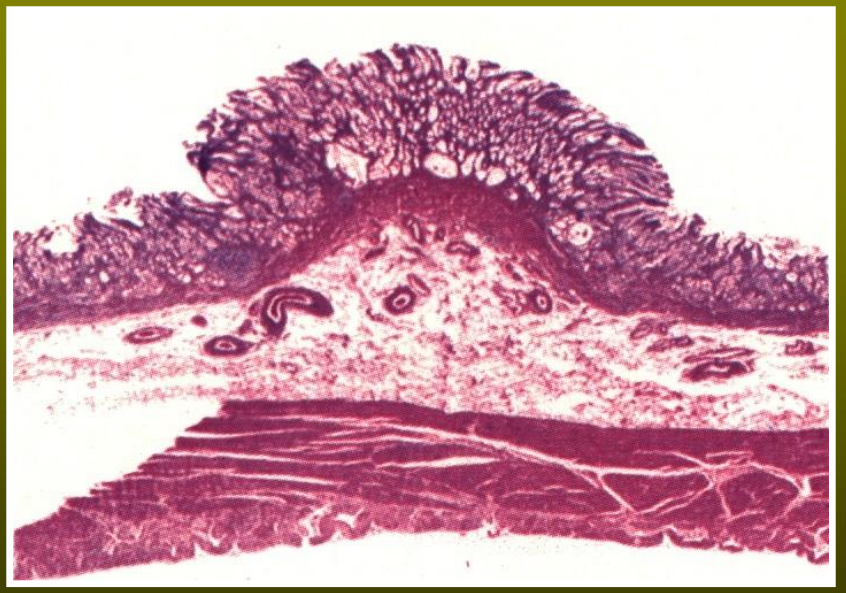
TUMORS OF ESOPHAGUS

SQUAMOUS PAPILLOMA



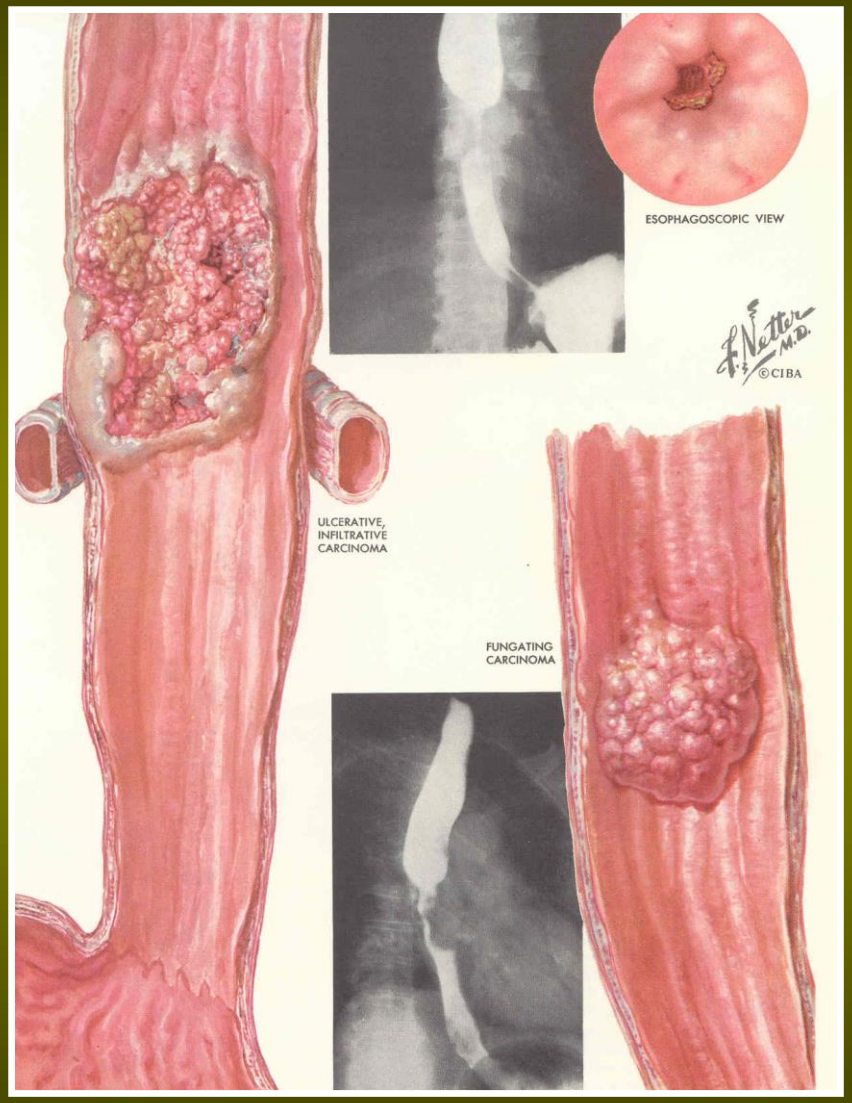
FIBROMA

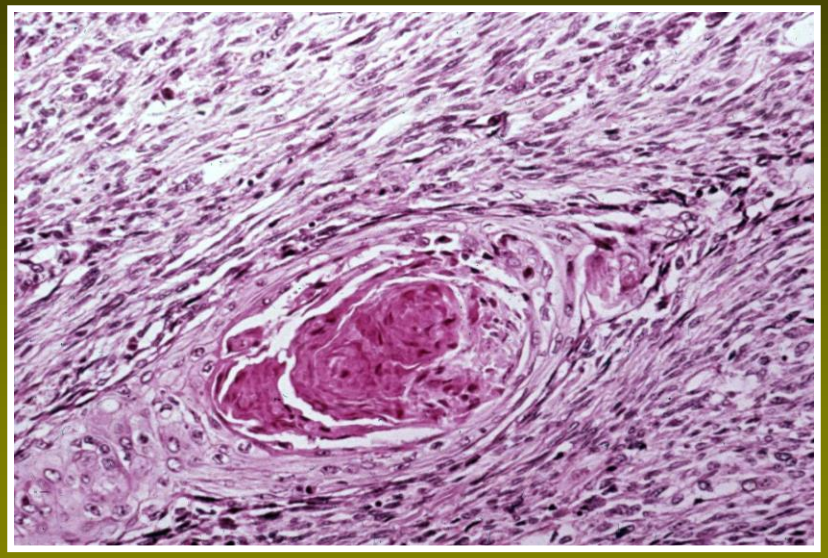
BENIGN TUMORS ARE VERY RARE



ADENOMA

CARCINOMA PLANOEPITHELIALE KERATODES –SQUAMOUS-CELL CARCINOMA (SCC)

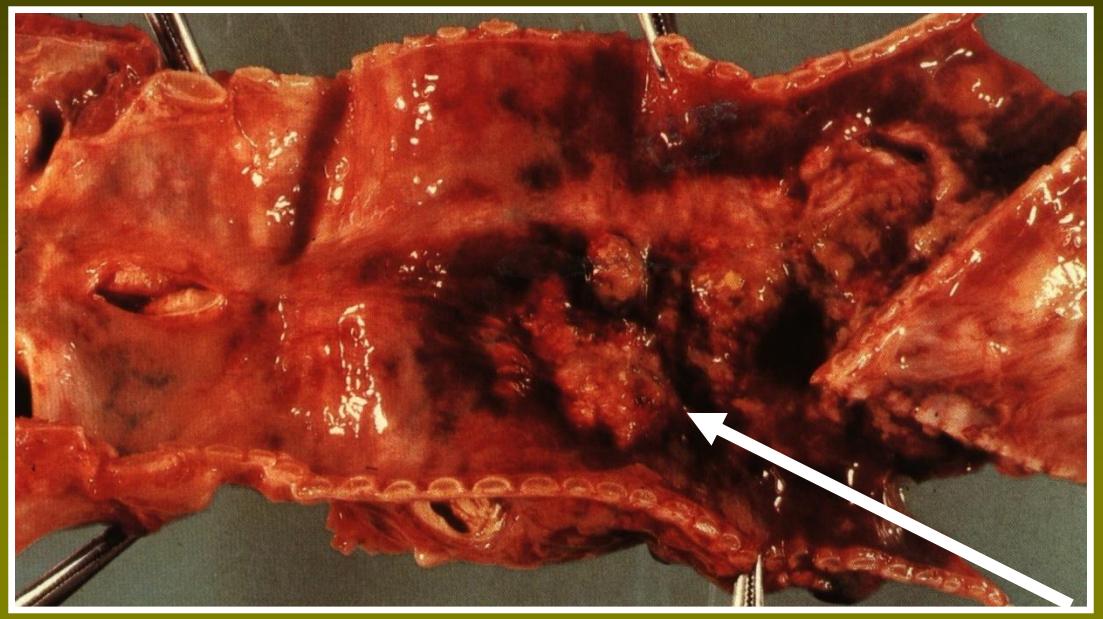


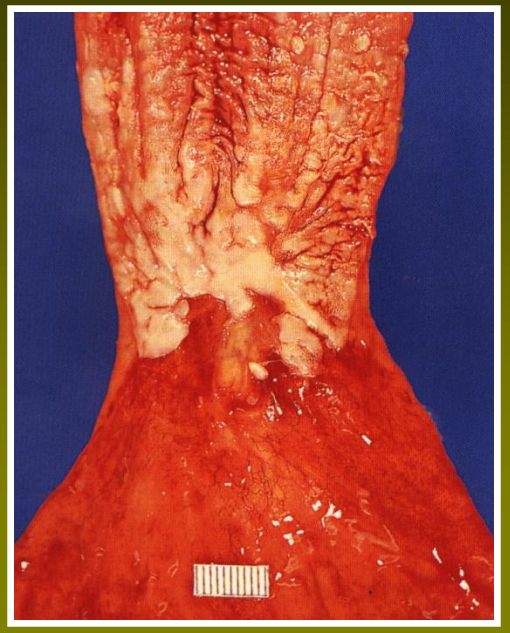


DYSPHAGIA IS A DOMINATING SYMPTOM. IN UPPER 2/3 OF ESOPHAGUS IT IS A SQUAMOUS CELL CARCINOMA; IN LOWER 1/3 ADENOCARCINOMA (AFTER BARRETT ESOPHAGUS). BAD PROGNOSIS.

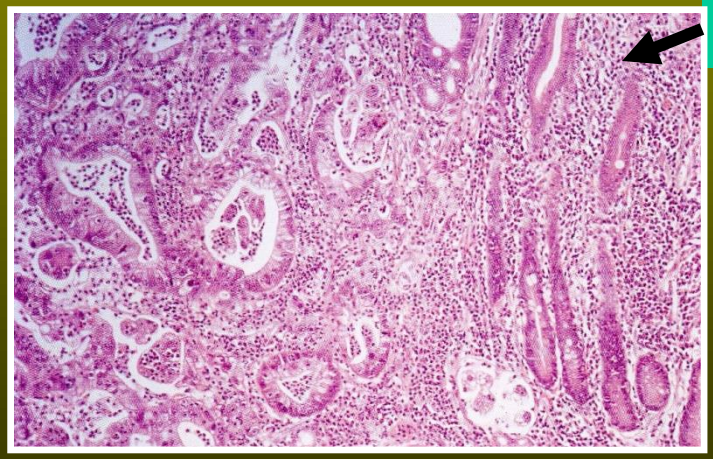
SQUAMOUS CELL CANCER (SCC) OCCURS IN BURNED ESOPHAGUS AFTER 30 YEARS IN 60% OF CASES

ADENOCARCINOMA



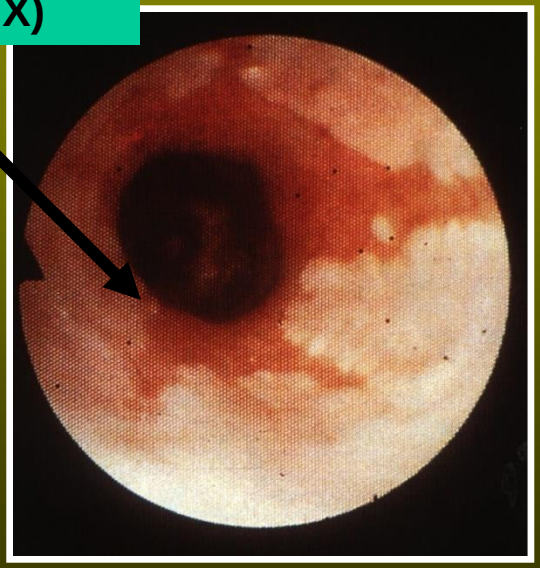


ADENOCARCINOMA IN ESOPHAGUS (INFILTRATION OF LARYNX)



BARRETTS' ESOPHAGUS

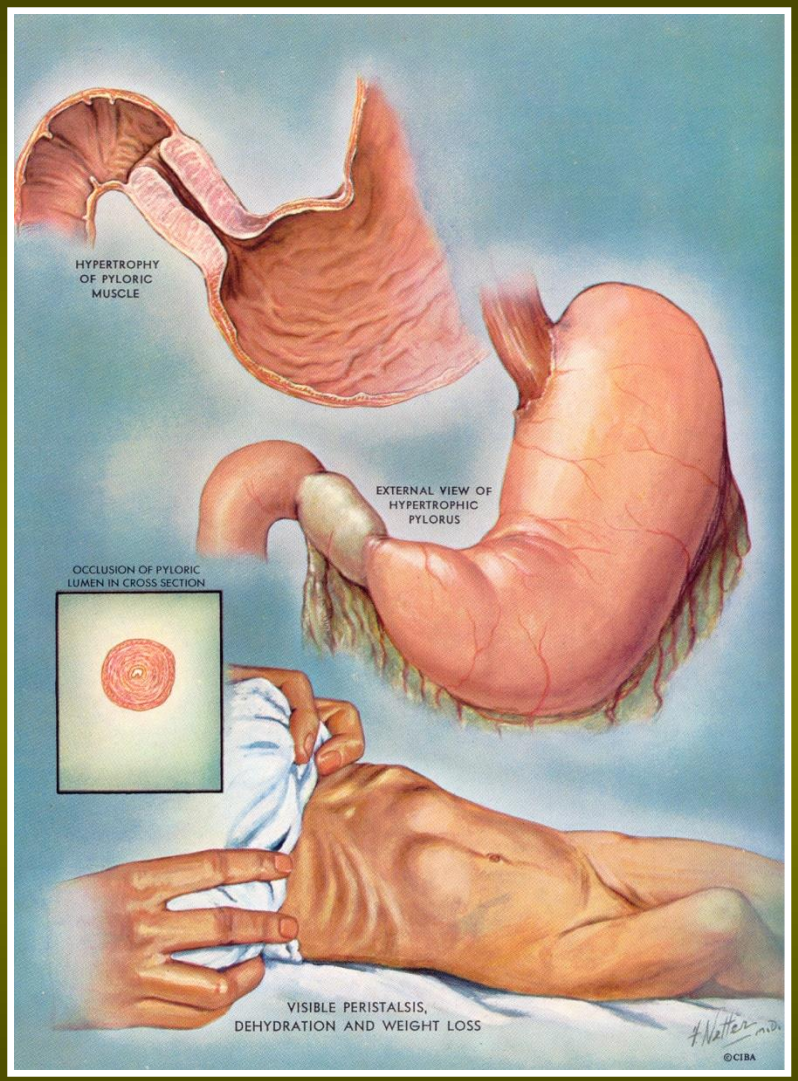
METAPLASIA IN THE LOWER PART OF ESOPHAGUS



CONGENITAL DEFECTS OF ANTERIOR WALL OF ABDOMEN

OMPHALOCELE

CONGENITAL HYPERTROPHIC PYLORIC STENOSIS



GASTRITIS

A DIFFUSE CHANGE OF THE MUCOSA, WHICH HISTOLOGICALLY CAN BE CONSIDERED AS AN INFLAMMATION.

PATHOMECHANISM IS COMPLEX AND DEPENDS ON:

DISTURBANCES IN IMMUNOLOGY, HORMONES, EFFECTS OF EXOGENIC SUBSTANCES AS WELL AS ANATOMICAL CHANGES IN STOMACH AND DUODENUM

CHANGES IN „MUCOSA BARRIER" (MAINLY BECAUSE OF SALINES, ALCOHOL, HYPERTONIC SOLUTIONS, ISCHEMIA, STRESS)

INFLAMMATION IS A COMPLEX PROCESS AND COMPRISES ALSO REGENERATIVE AND DEGENERATIVE CHANGES

GASTRITIS CLASSIFICATION ACCORDING TO MORSON AND WHITEHEAD

I. Acute gastritis:

1) hemorrhagic gastritis

2) erosive gastritis

II. Chronic gastritis

1) active chronic superficial gastritis

non-active chronic superficial gastritis

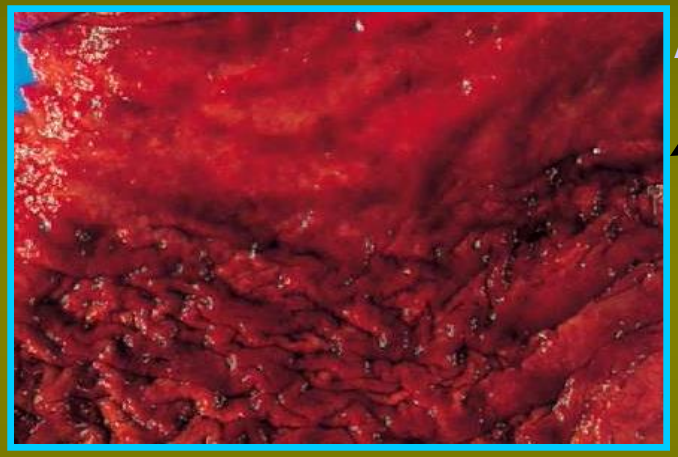
2) active atrophic chronic gastritis

non-active chronic atrophic gastritis

3) atrophy of stomach mucosa

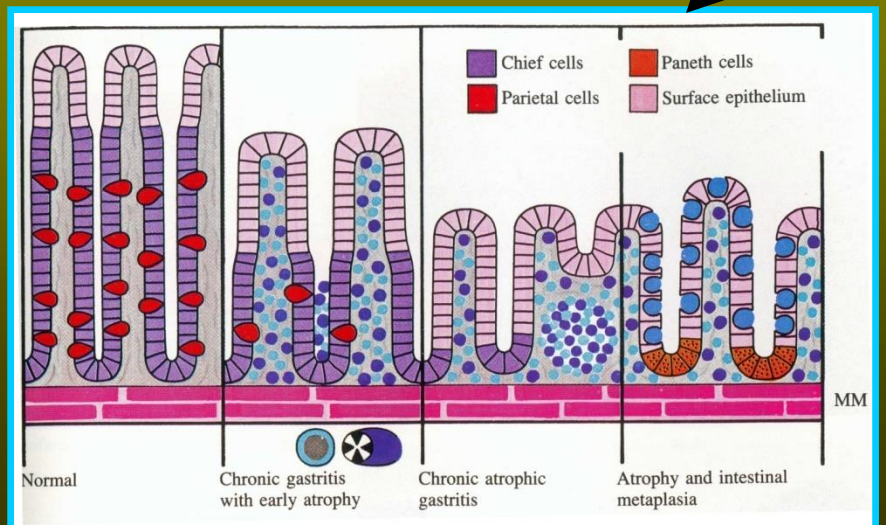
ACUTE GASTRITIS (HISTOLOGICALLY):
HEMORRHAGE CLOSE TO GLANDS
HEMORRHAGE IN MUCOSA
DAMAGE OR DESTRUCTION OF EPITHELIUM LEADING TO BLEEDING EROSIONS

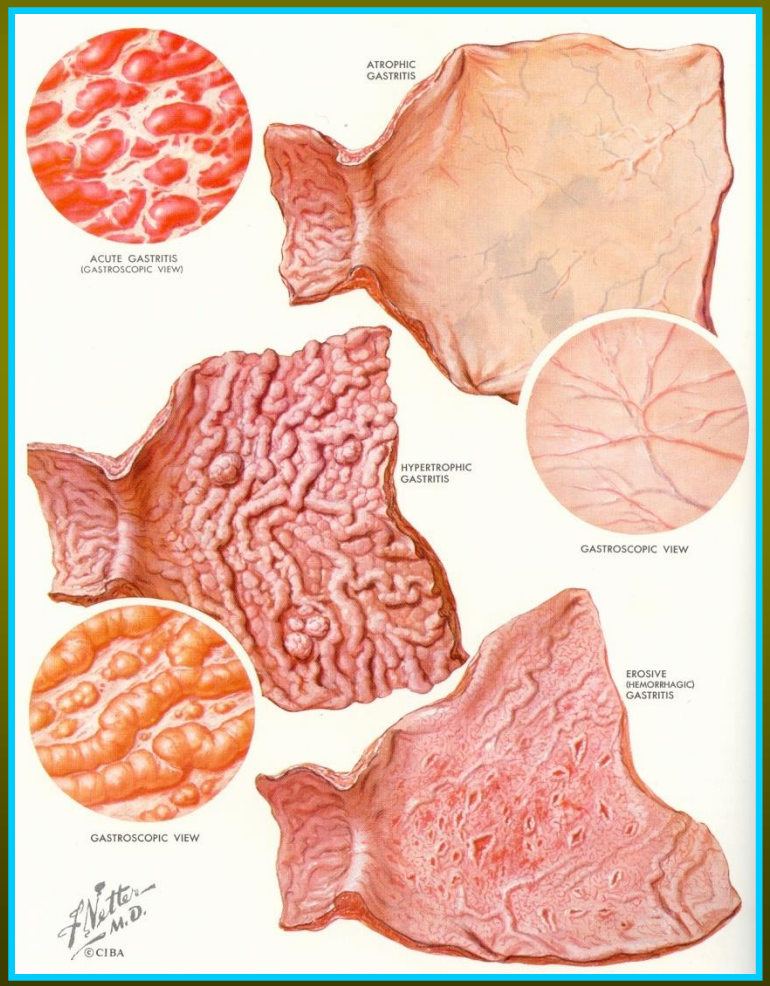
CHRONIC GASTRITIS
CAN BE DUE TO IMMUNOLOGICAL DISTURBANCES



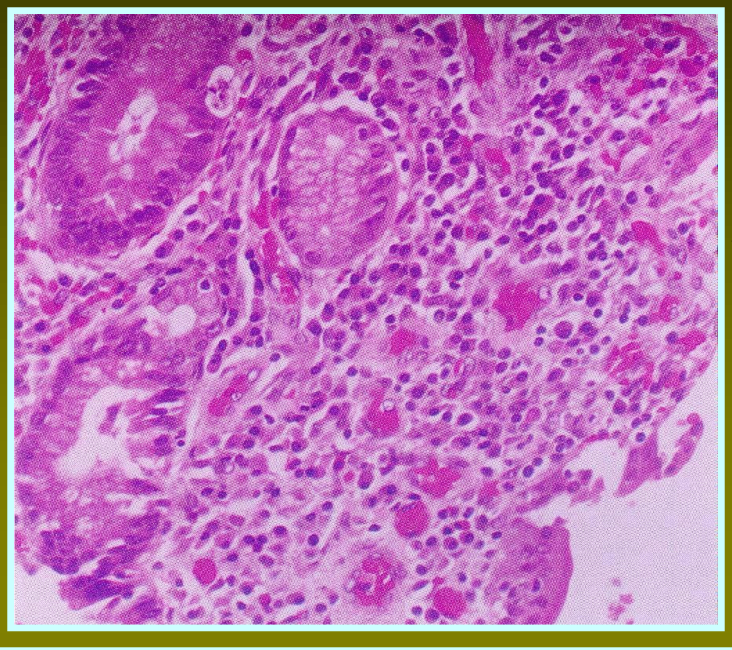
ACUTE GASTRITIS

SCHEME OF CHANGES IN THE MUCOSA IN INFLAMMATION





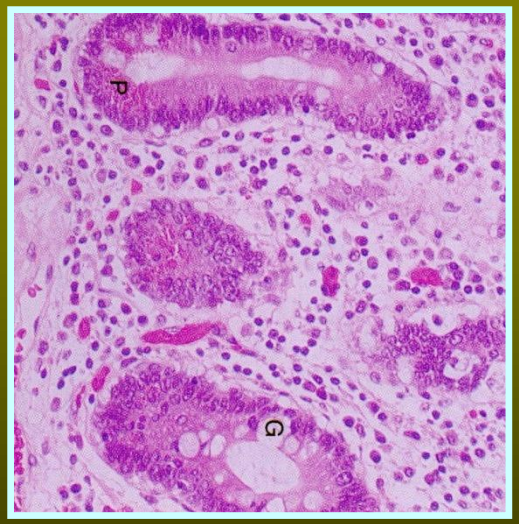
HISTOLOGY OF GASTRITIS



EROSIVE GASTRITIS

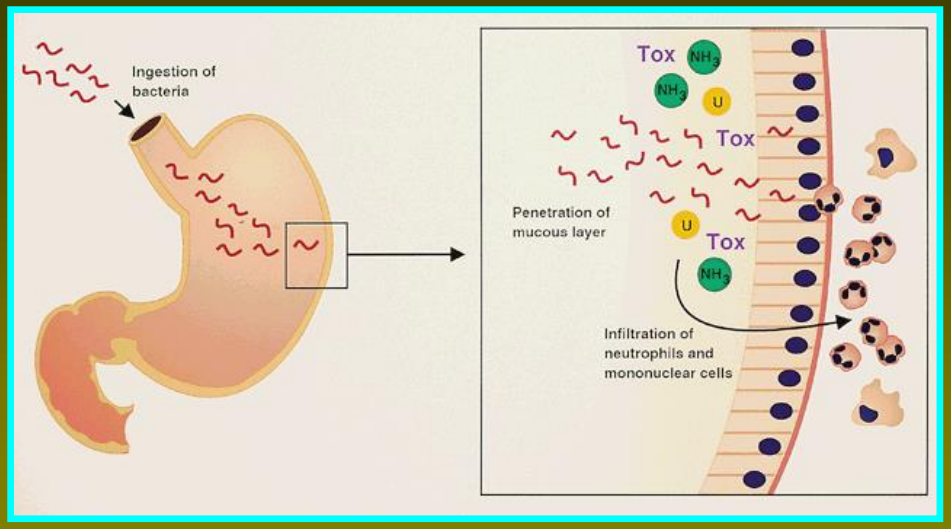
HELICOBACTER PYLORI IN GASTRITIS

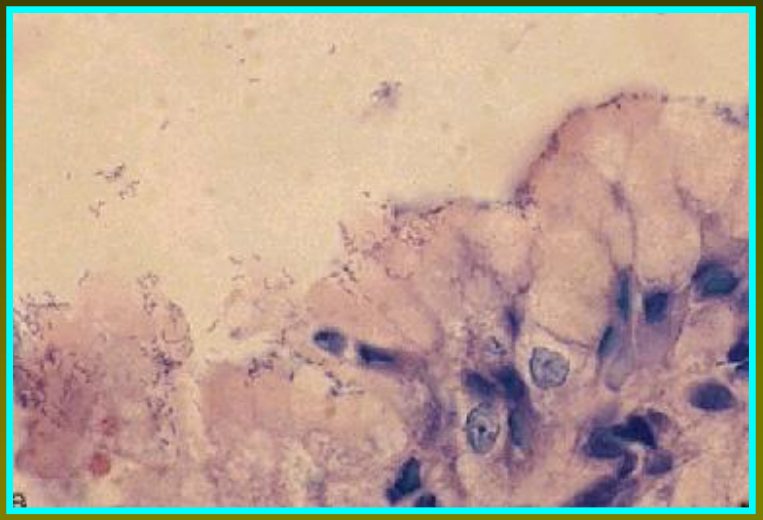
CHRONIC ATROPHIC GASTRITIS

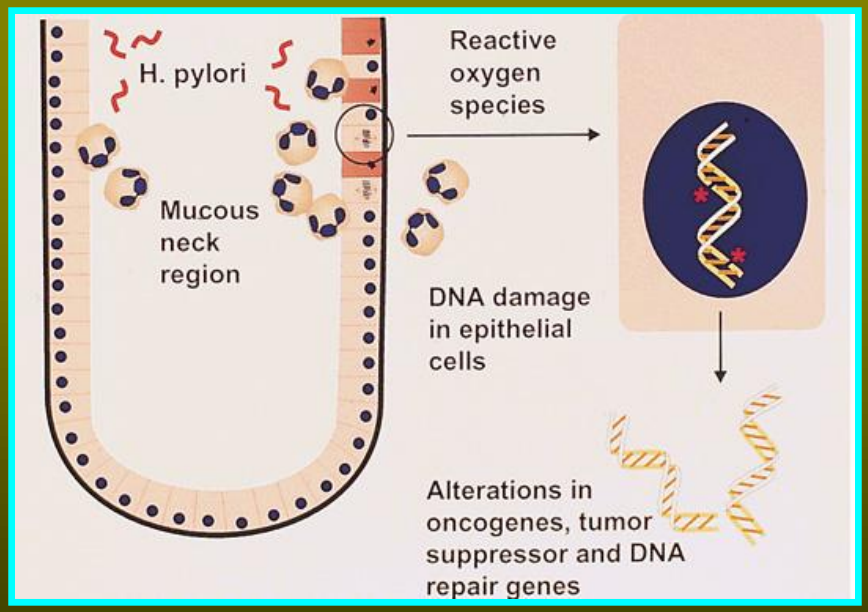


INTESTINAL METAPLASIA

ROLE OF HELICOBACTER PYLORI IN PATHOGENESIS OF ULCERS AND GASTRIC CANCER

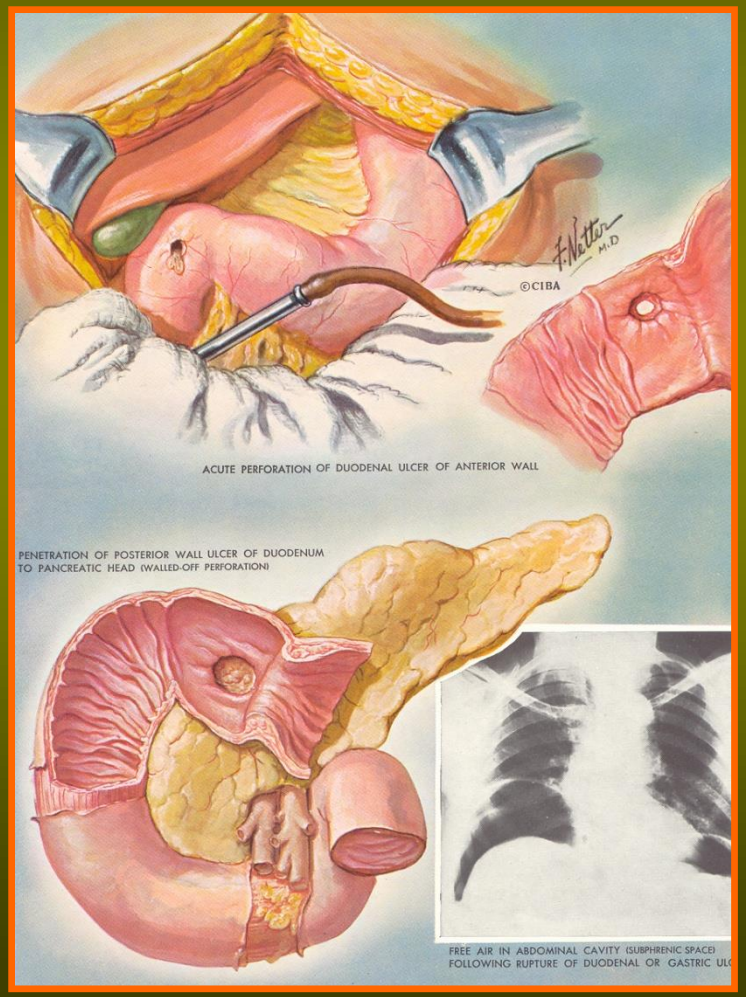


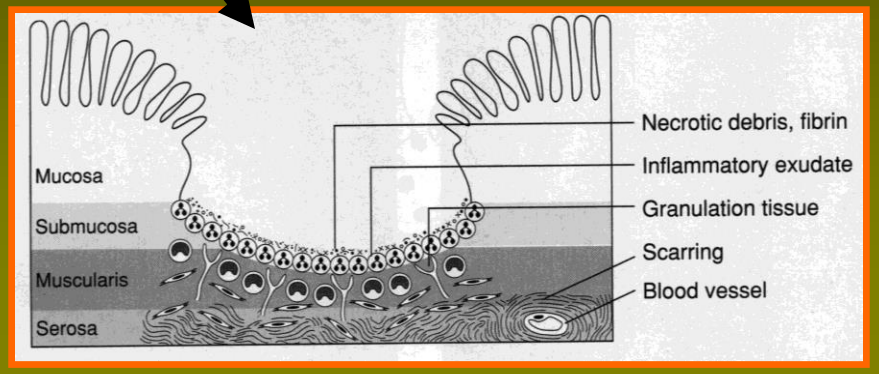




HELICOBACTER PYLORI PLAYS A KEY ROLE IN WAVING OF THE EQUILIBRIUM OF THE DEFENSE MECHANISMS OF MUCOSA IN THE STOMACH AND DUODENUM. IT HAS A BIG EFFECT ON THE ACTIVATION OF THE MECHANISMS THAT DESTROY THE DNA IN EPITHELIAL CELLS

MICROSCOPICAL PICTURE OF THE ULCER





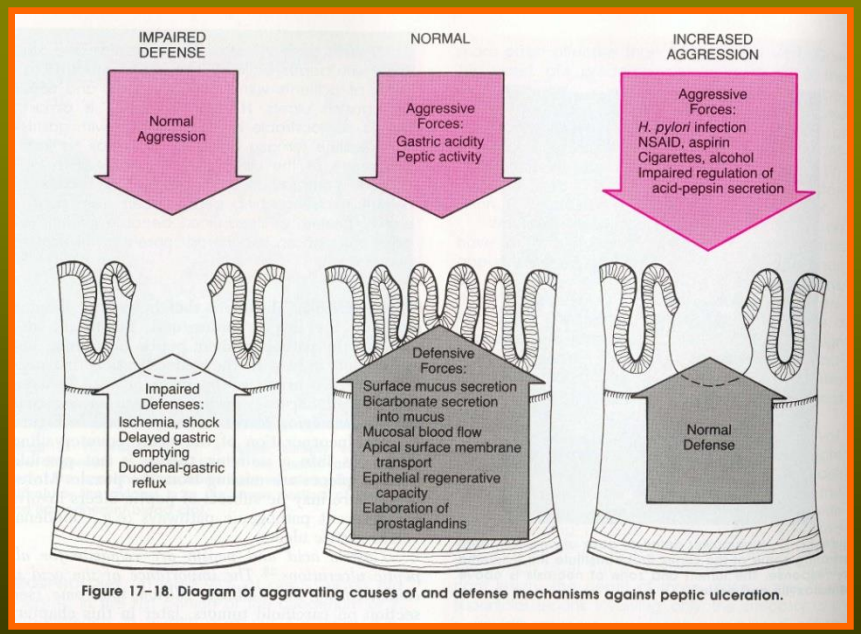
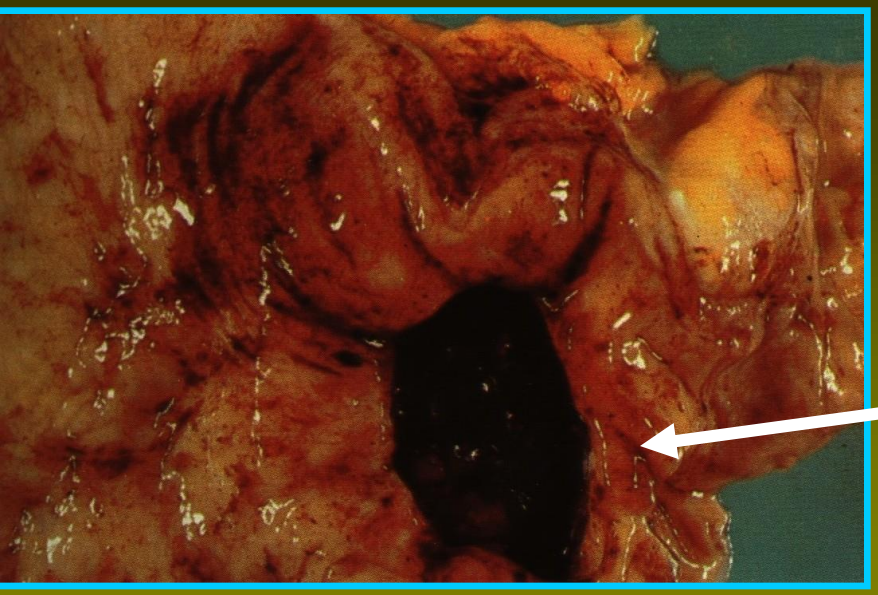
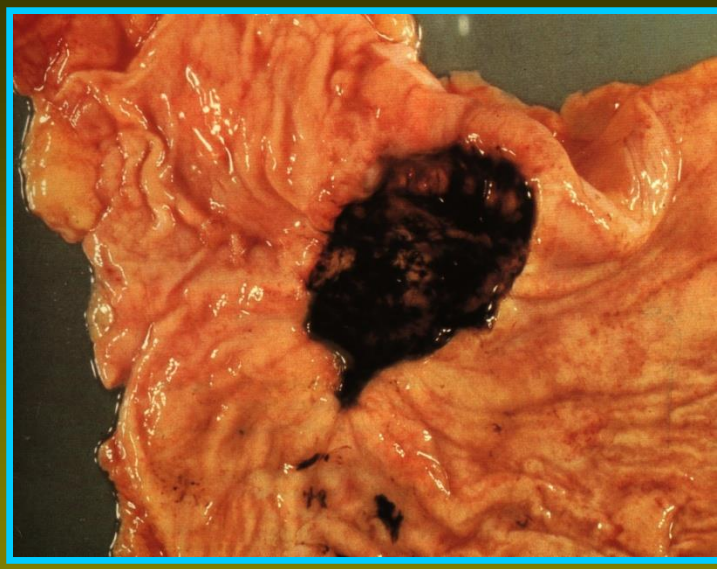
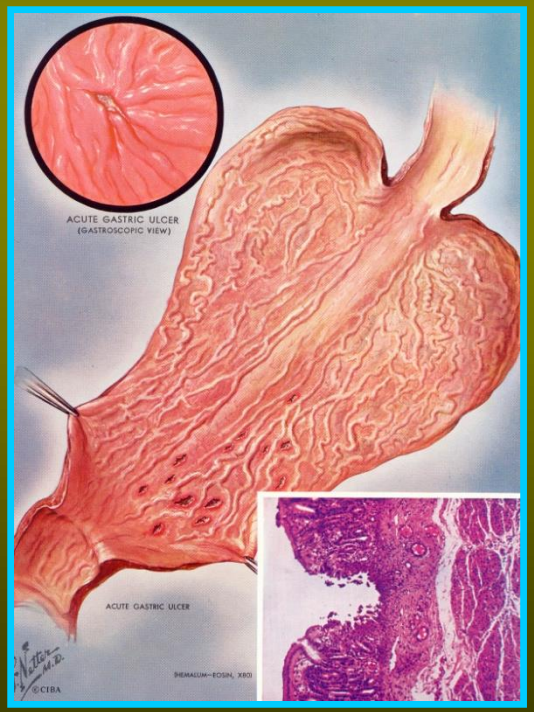


Figure 17–18. Diagram of aggravating causes of and defense mechanisms against peptic ulceration.

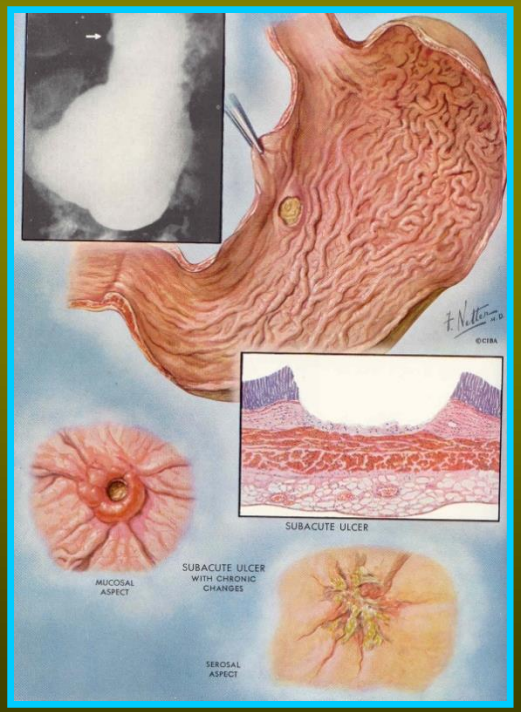


BLEEDING ULCER OF STOMACH

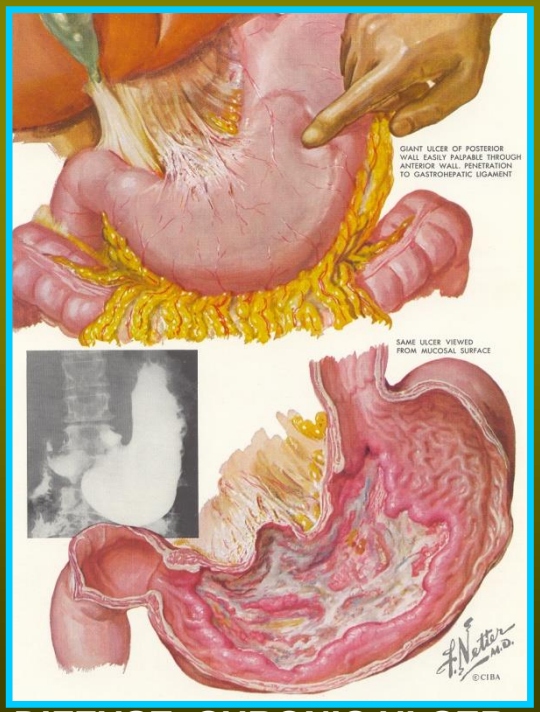




ACUTE ULCERS OF STOMACH

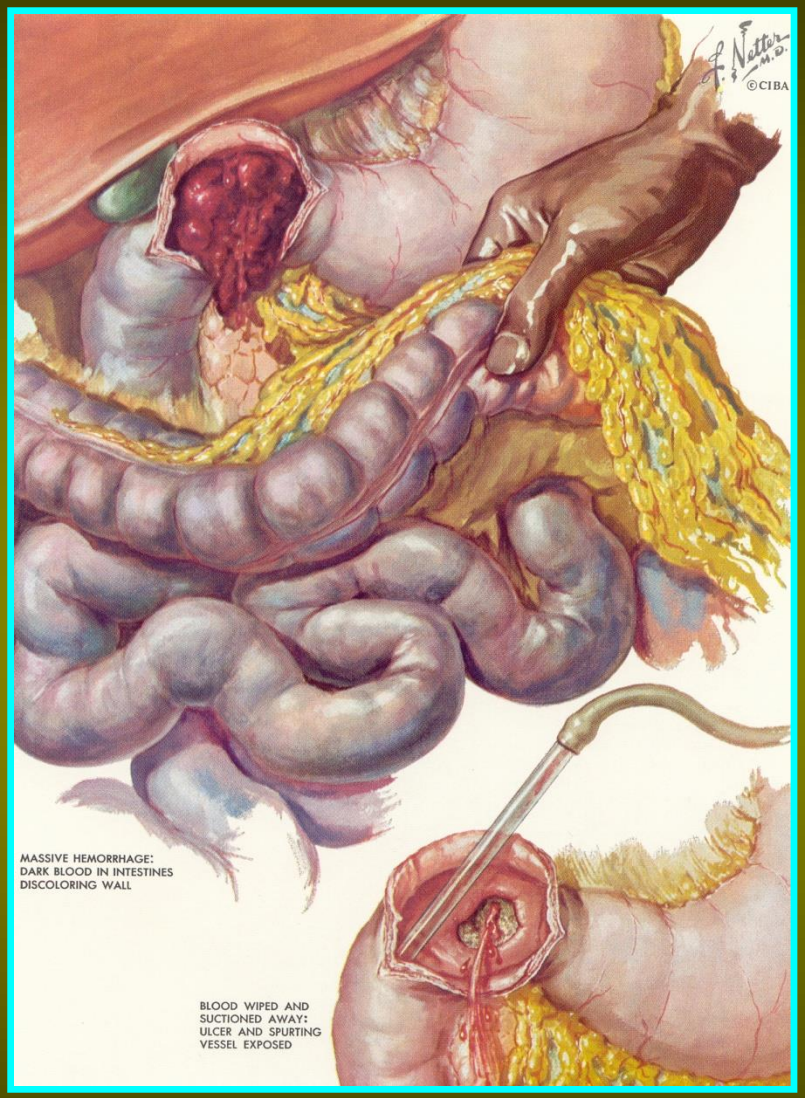


CHRONIC ULCER IN STOMACH

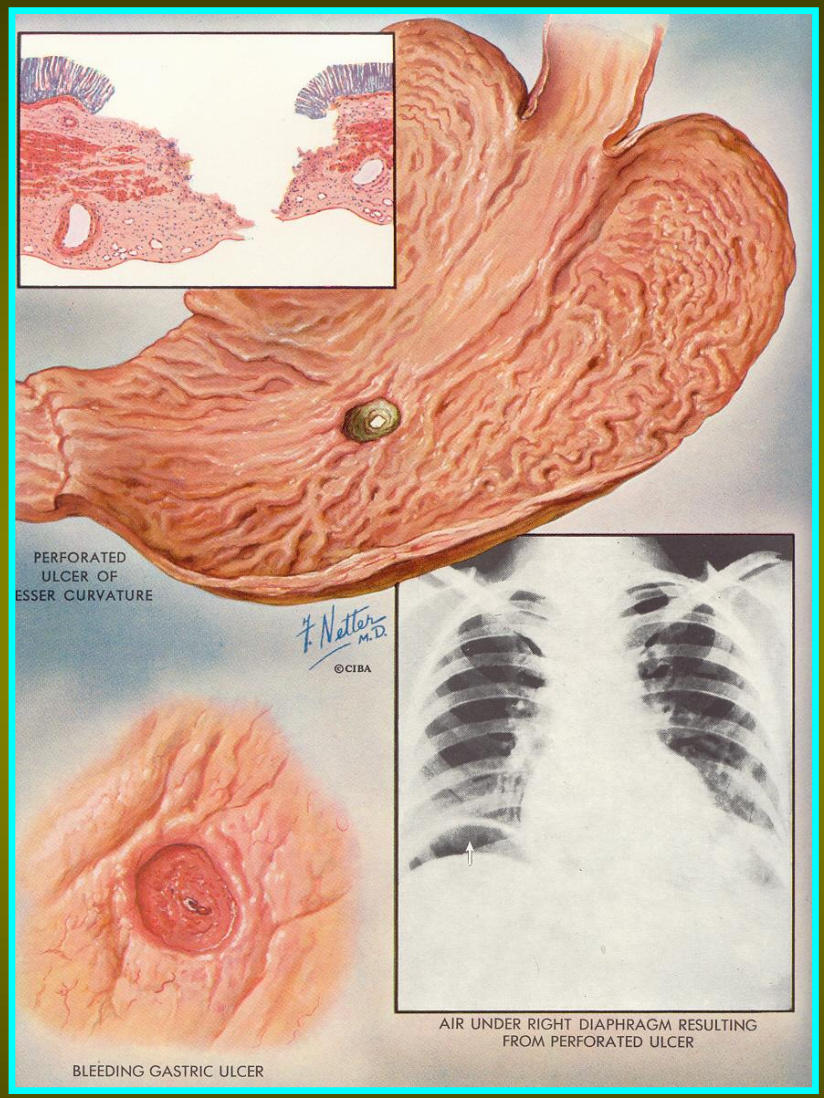


DIFFUSE, CHRONIC ULCER

COMPLICATIONS OF ULCERS IN STOMACH AND DUODENUM

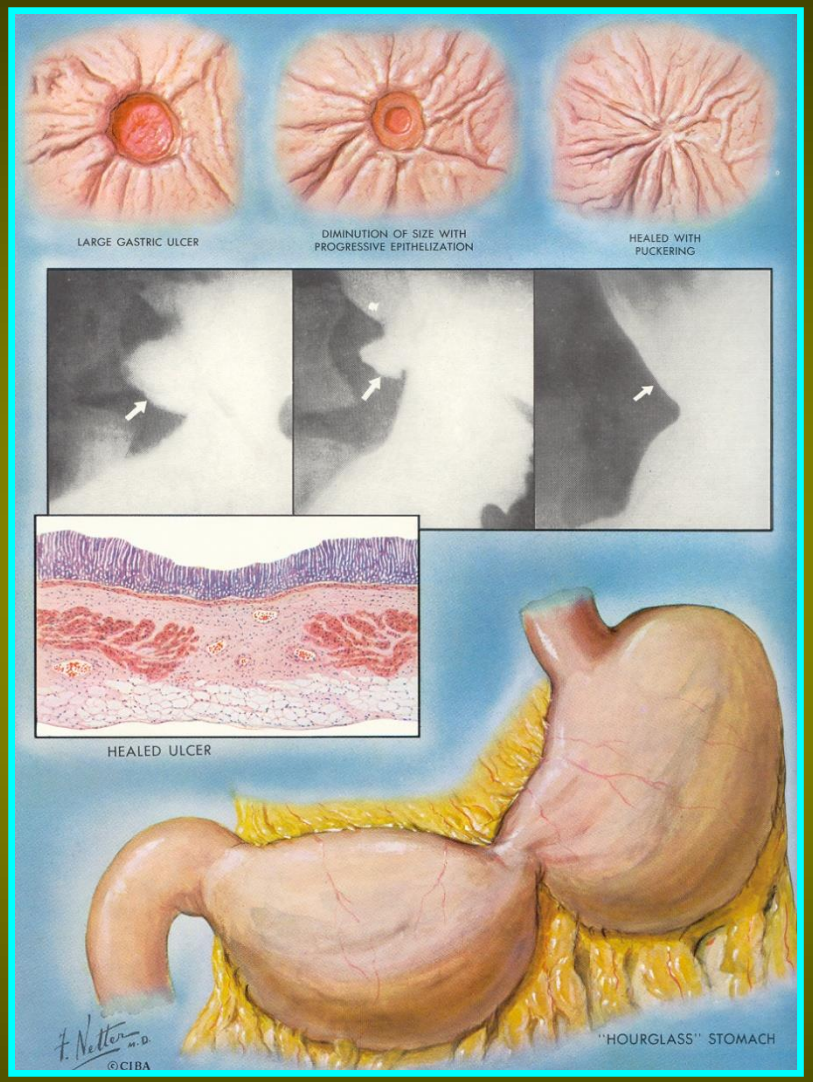


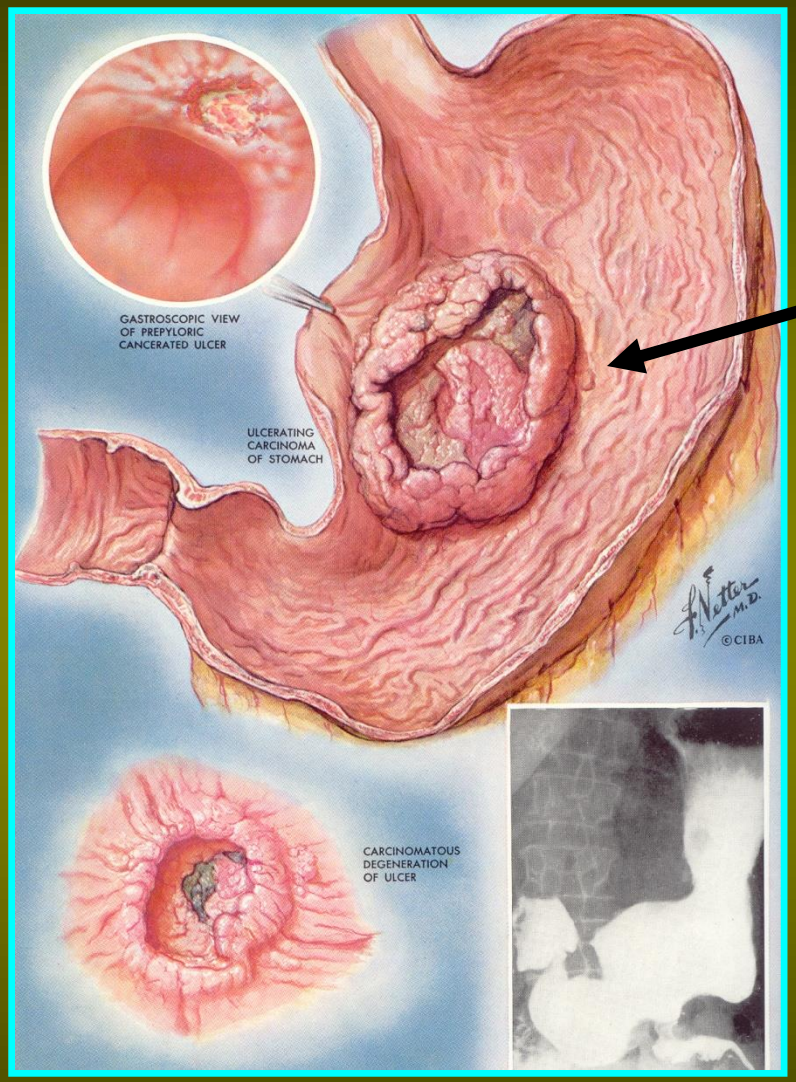
BLEEDING OF DIFFERENT INTENSITY, INCLUDING PROFUSE, FATAL BLEEDING IS THE MOST COMMON COMPLICATION OF ULCERS



PERFORATION OF ULCER WITH SUBSEQUENT INFLAMMATION IS THE SECOND MOST COMMON COMPLICATION.

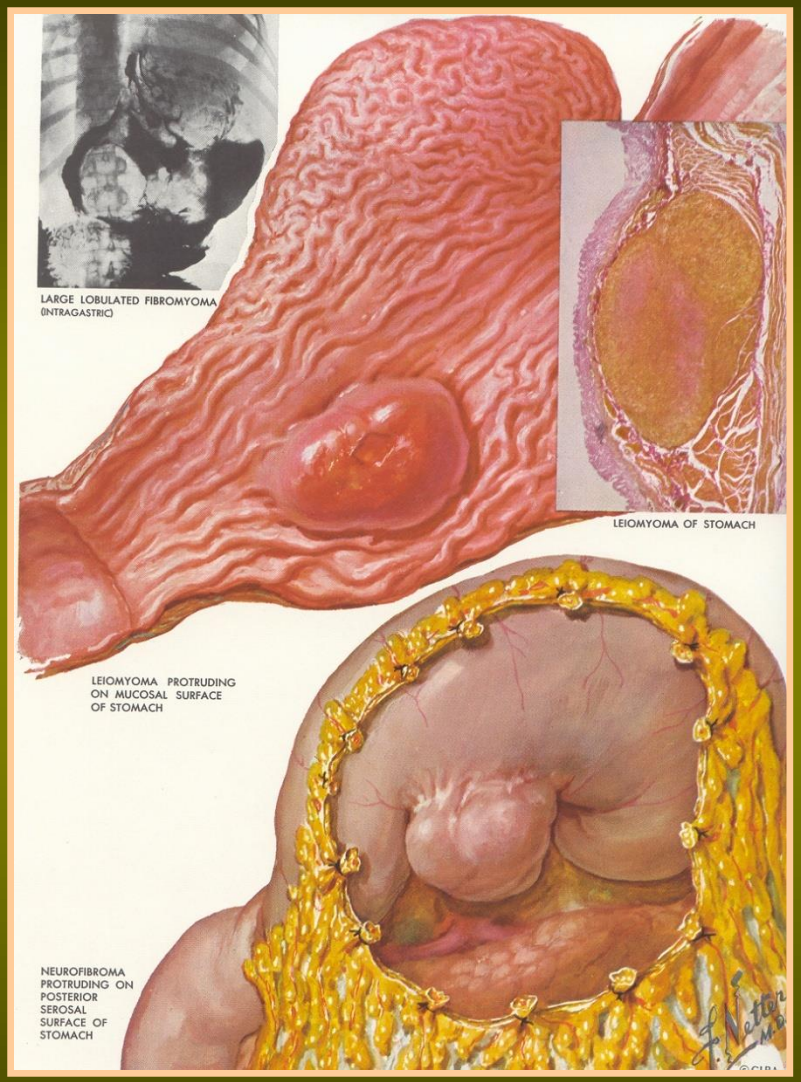
COMPLICATIONS OF ULCERS IN STOMACH AND DUODENUM





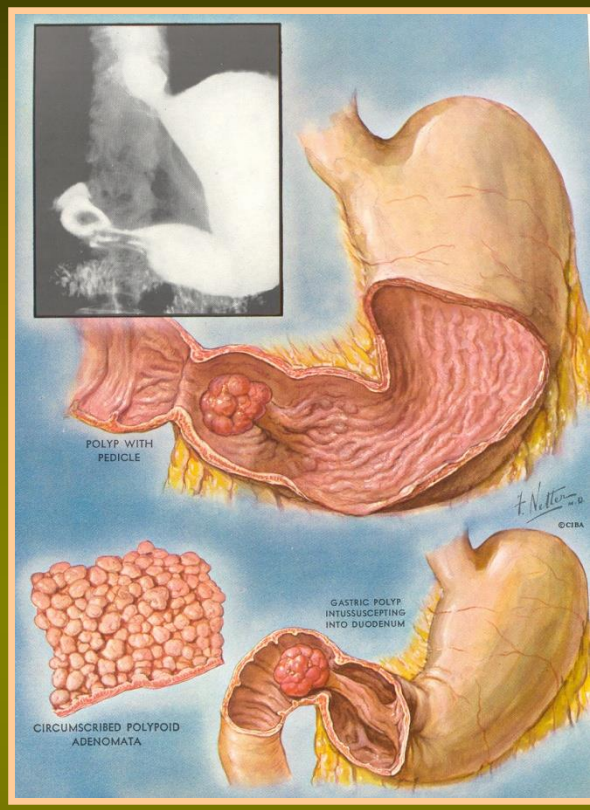
HEALING OF CHRONIC ULCERS RESULT IN SCARS THAT EVENTUALLY LEAD TO THE CONSTRICTION OF THE WALL OF THE STOMACH

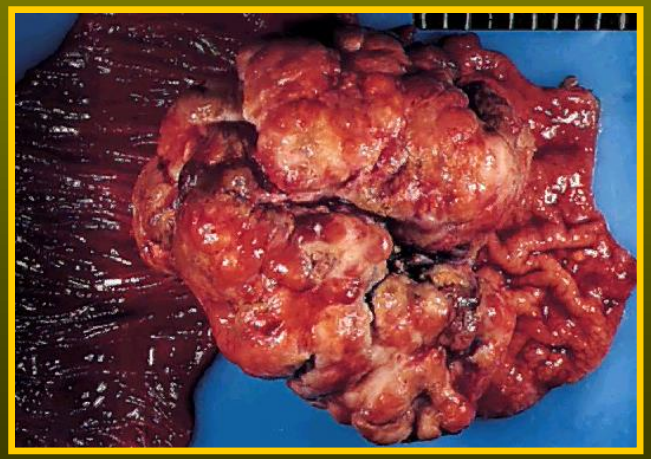
BENIGN TUMORS OF STOMACH



LEIOMYOMA
THE SECOND MOST COMMON SITE FOR THIS TUMOR – THE FIRST IS UTERUS

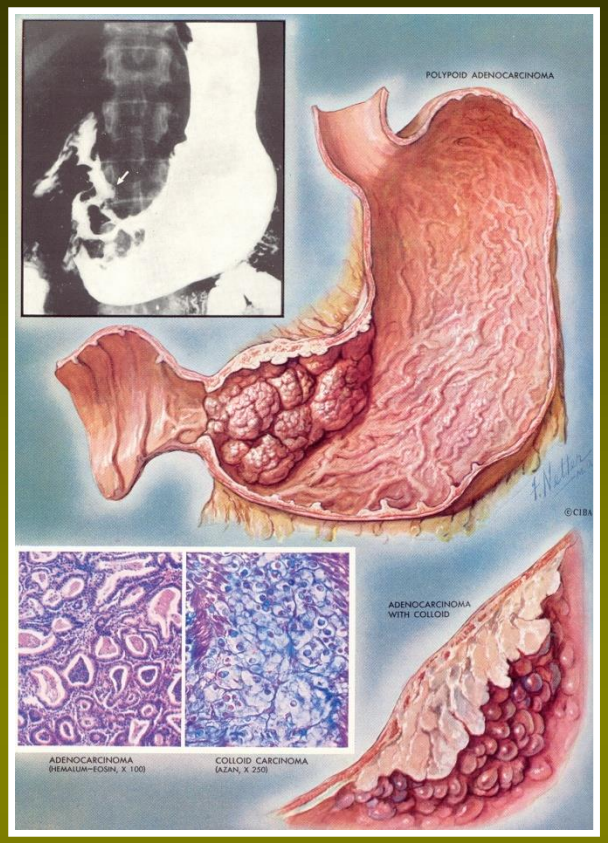
ADENOMA (ADENOMATOUS POLYP)
TUMOR THAT MAY UNUSUALLY QUICKLY BECOME MALIGNANT





CARCINOMA OF STOMACH

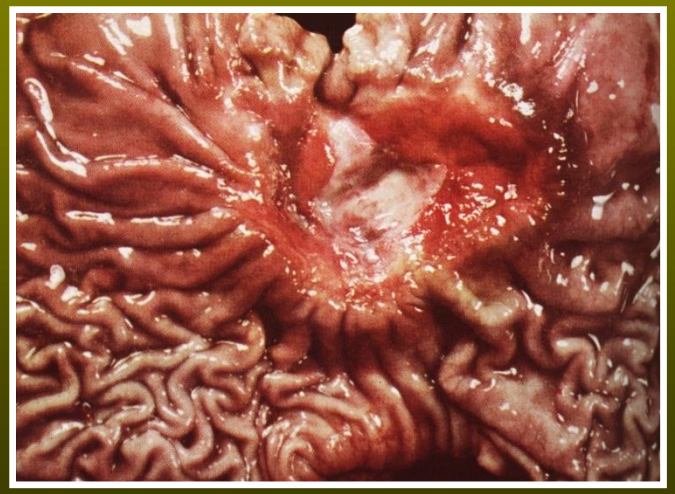
POOR PROGNOSIS. ONLY EARLY, LIMITED TO MUCOSA HAVE A GOOD PROGNOSIS. DISTINCT BORDERS MAY OCCUR

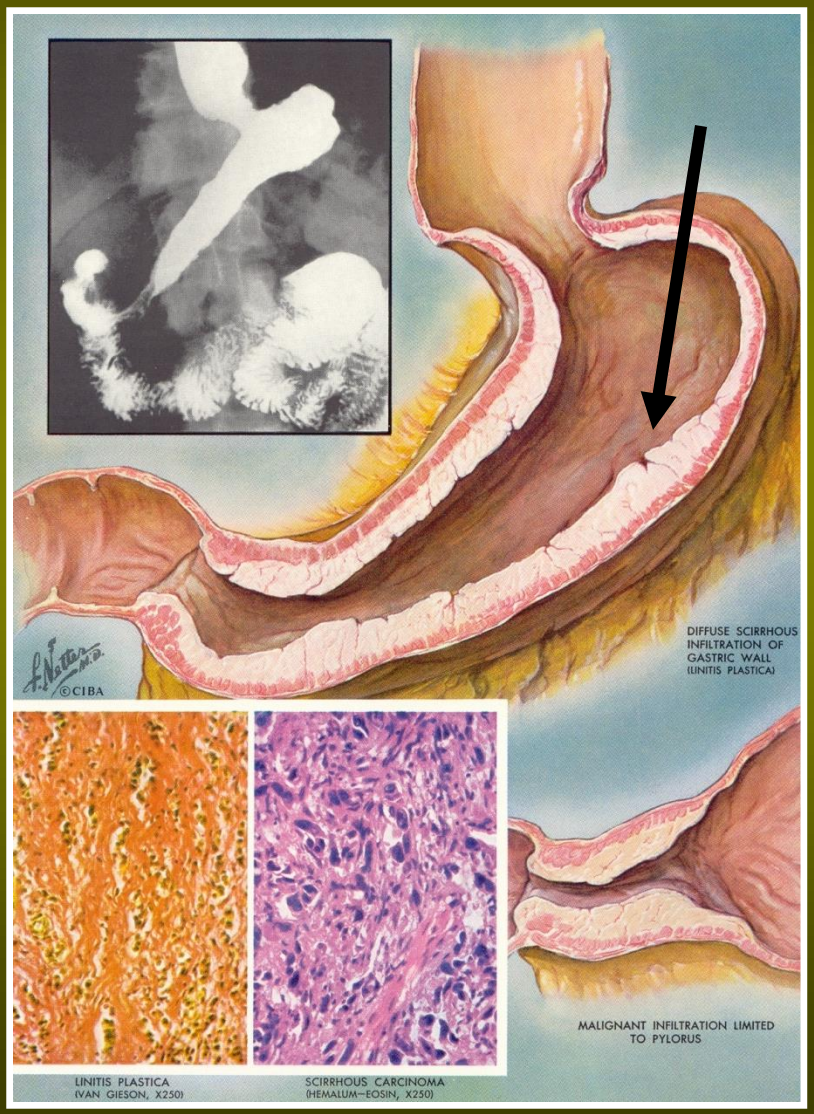


PLASTIC LINITIS

FUNGOUS ADENOCARCINOMA

ULCERATION OF CANCER.



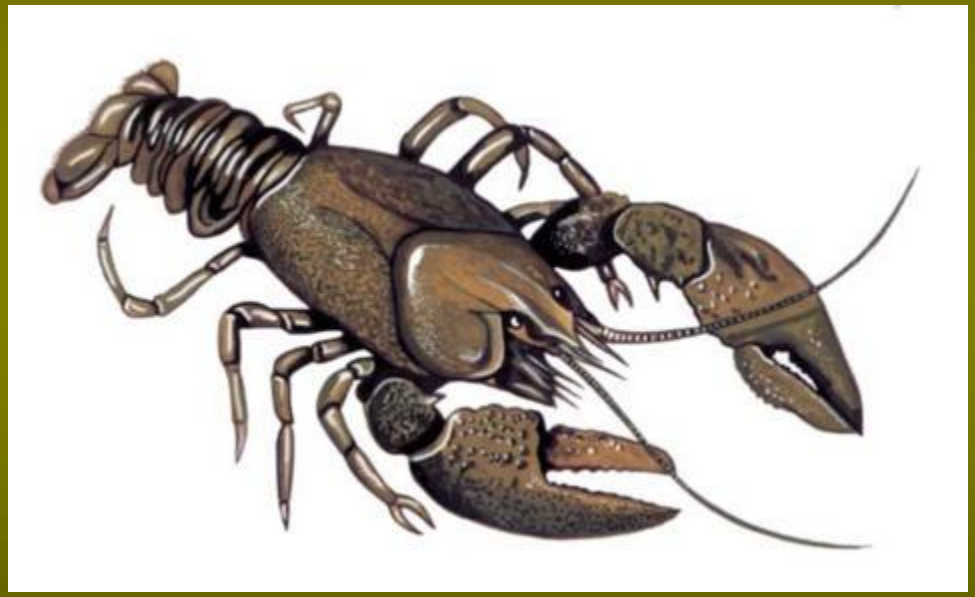


EATING JALAPENO

OR…

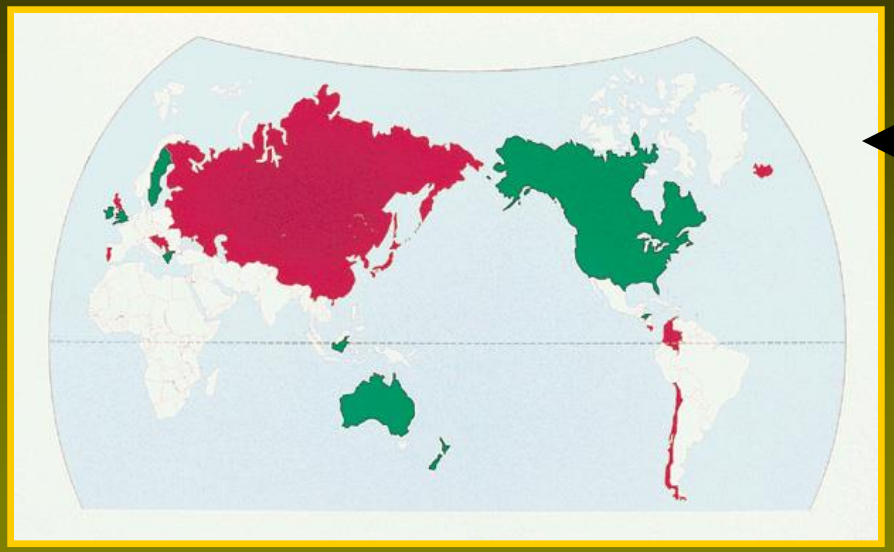
…OR PEPPERONI MAY RESULT IN…

… CANCER ???

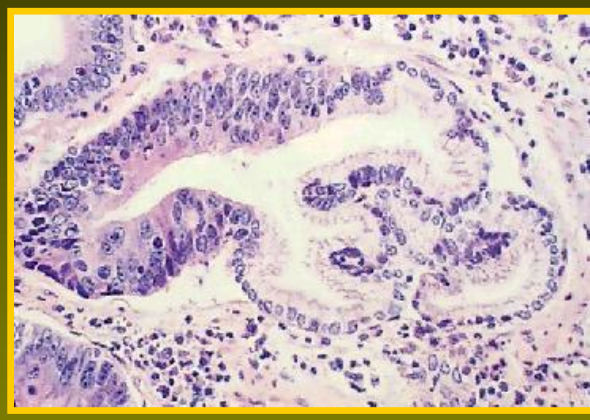


AND WHAT ABOUT SMOKED FISH ???

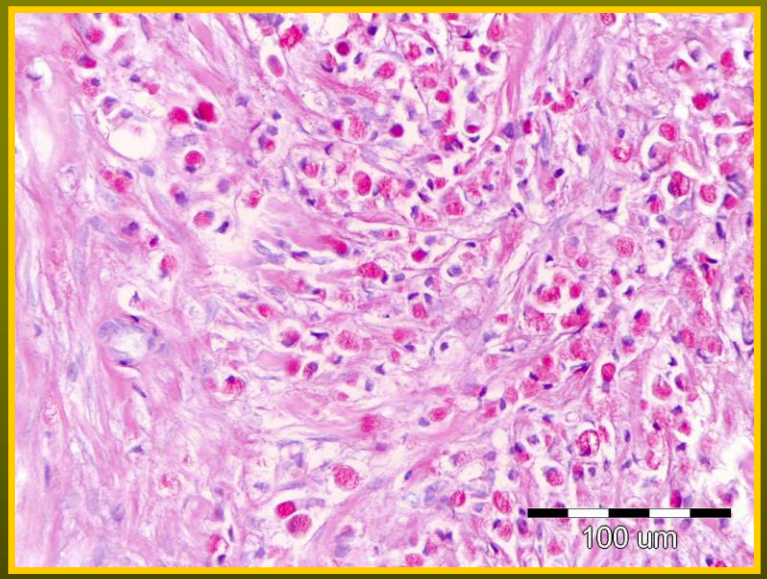
CARCINOMA OF STOMACH



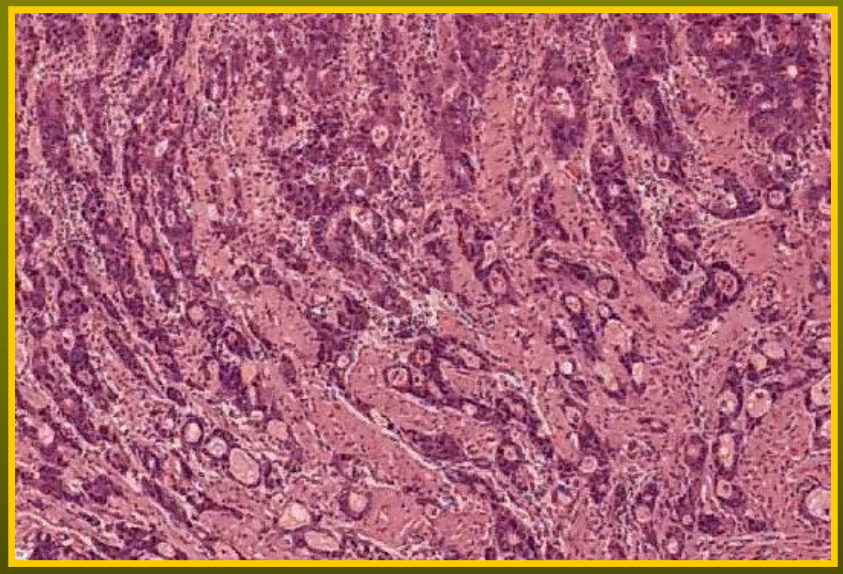
GEOGRAPHIC DIFFERENCES IN OCCURRENCE OF TUMOR



DYSPLASIA

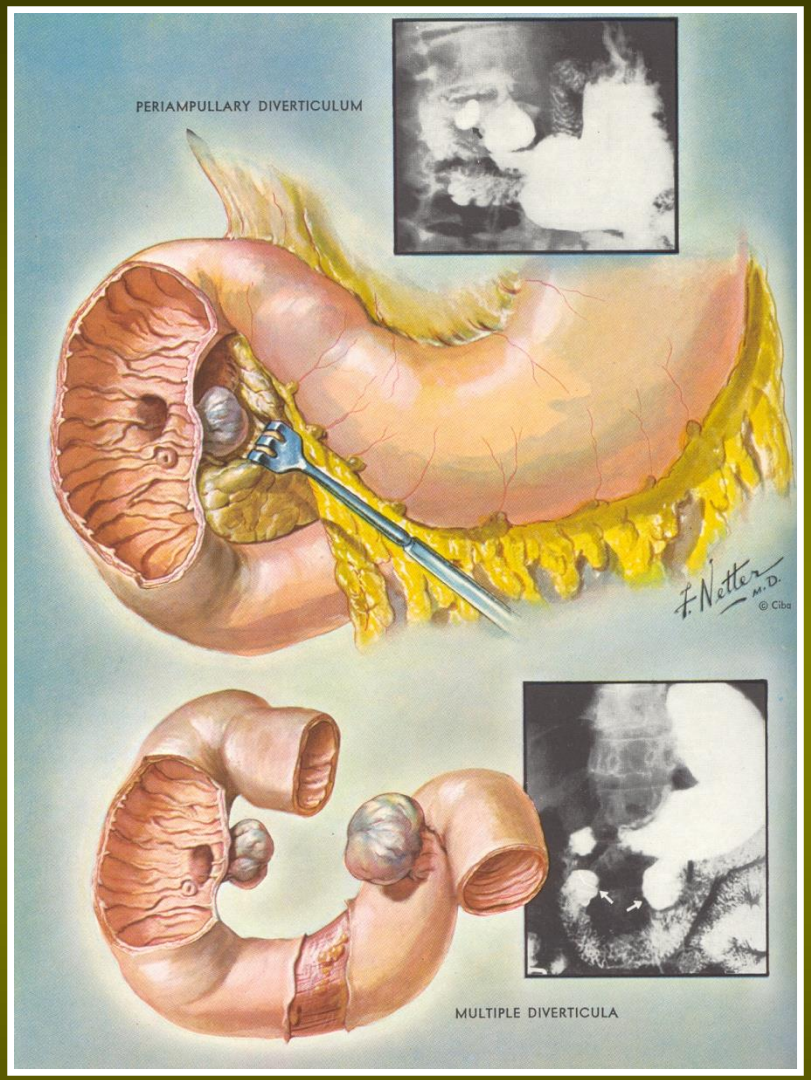


MUCINOUS CARCINOMA



ADENOCARCINOMA

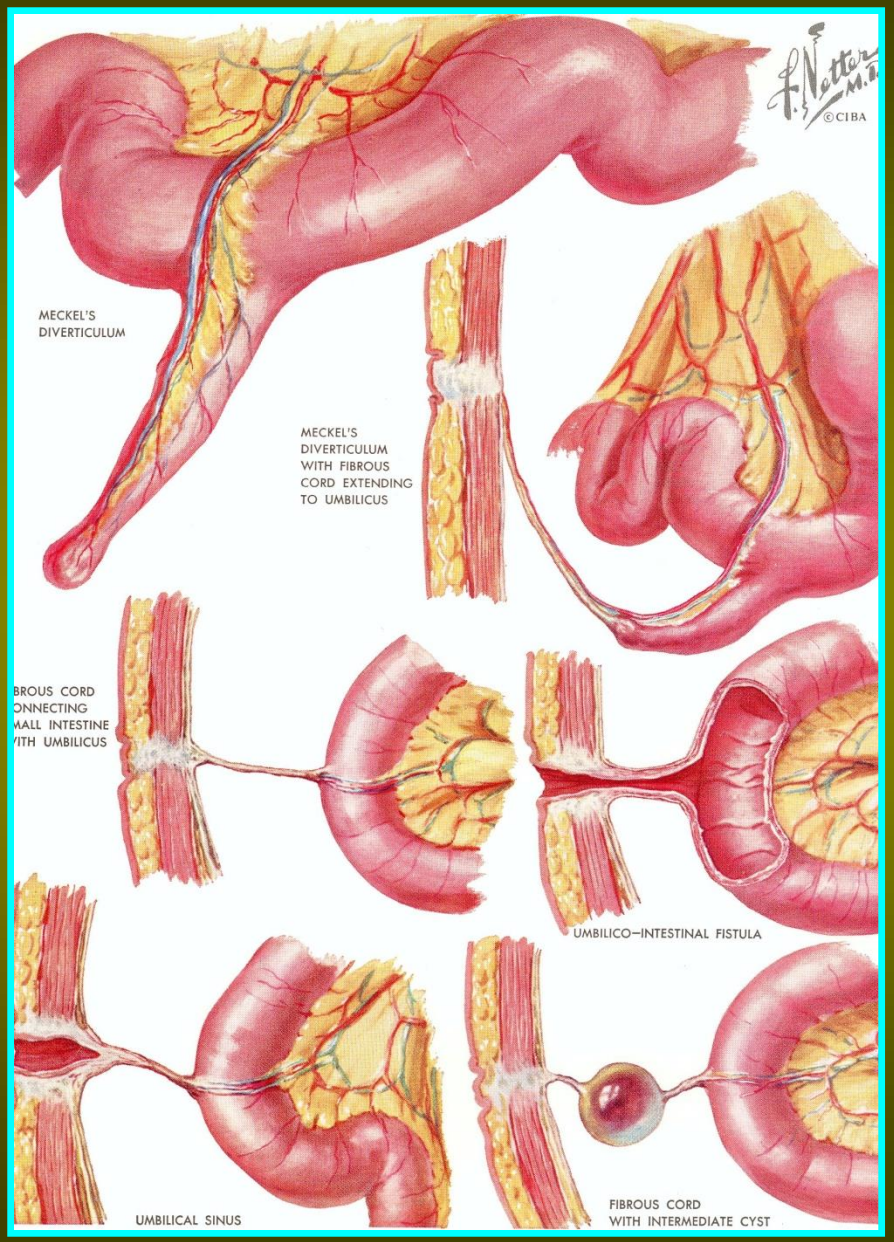
DUODENAL PATHOLOGY



DUODENAL DIVERTICULA

CANCER OF AMPULLA IS A RARE TUMOR, HOWEVER IT IS THE MOST COMMON LOCALISATION OF A MALIGNANT TUMOR IN THE SMALL INTESTINE

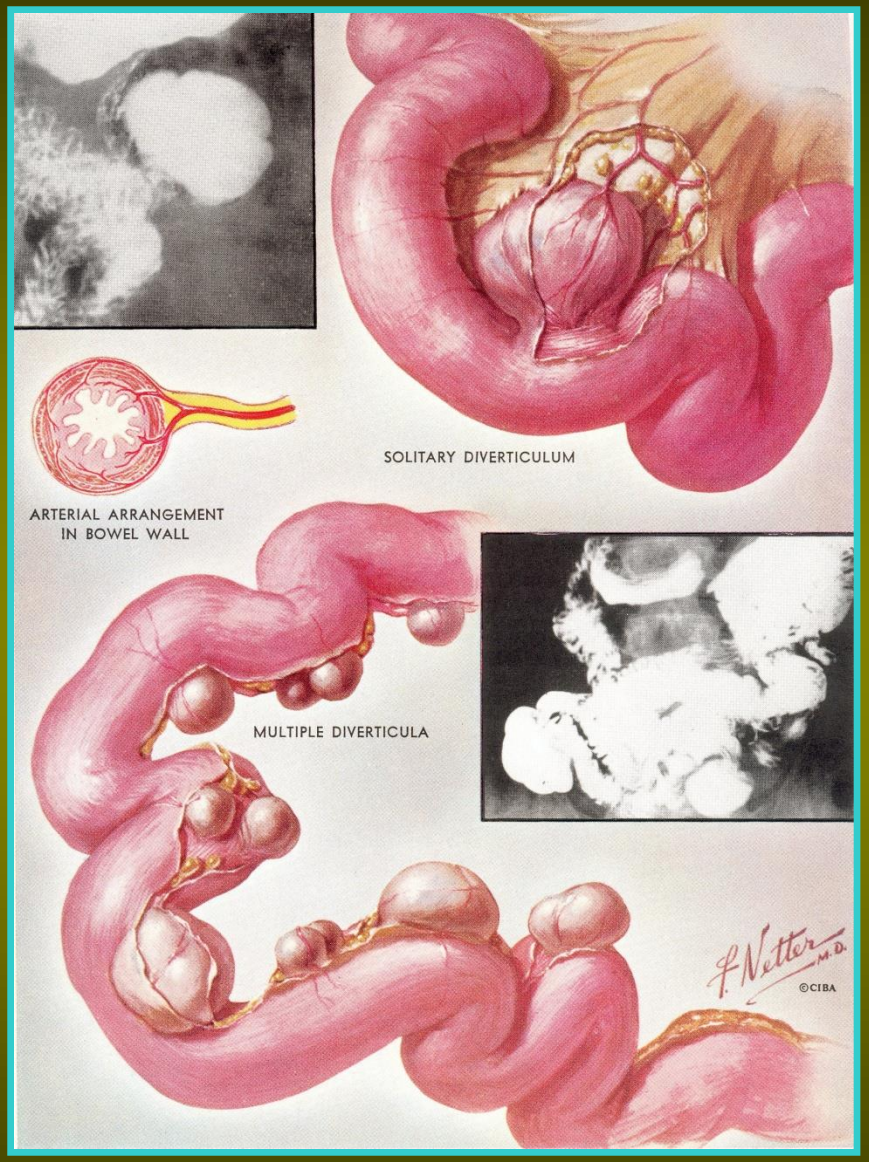
MECKEL DIVERTICULUM



OMPHALOMESENTERIC DUCT

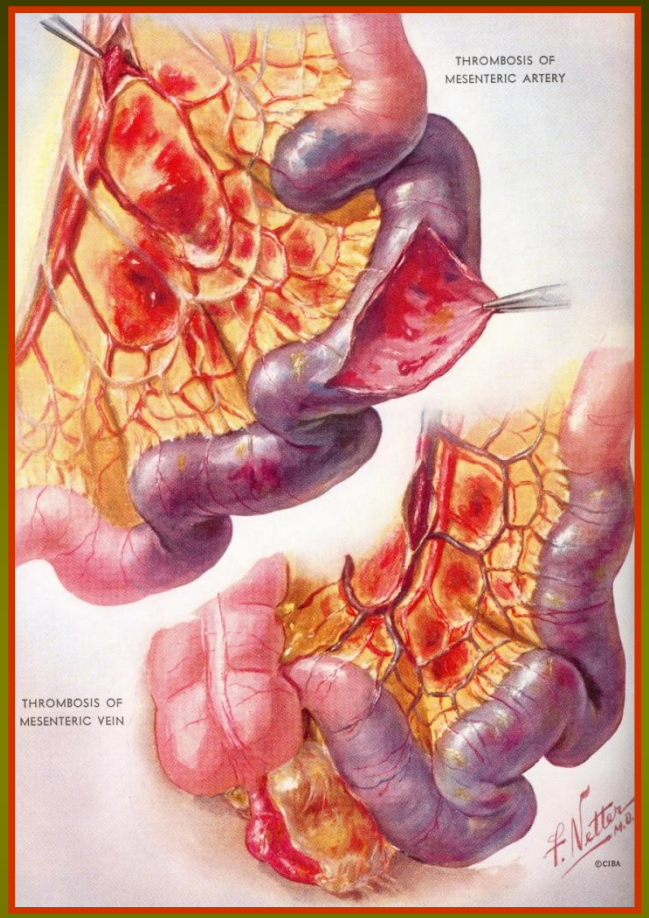
ONE OF THE MOST COMMONLY OBSERVED DIVERTICULUM IN THE INTESTINES WITH A STABLE LOCALIZATION ABOUT 1CM OF THE BAUHIN'S VALVE IN ADULTS

DIVERTICULOSIS



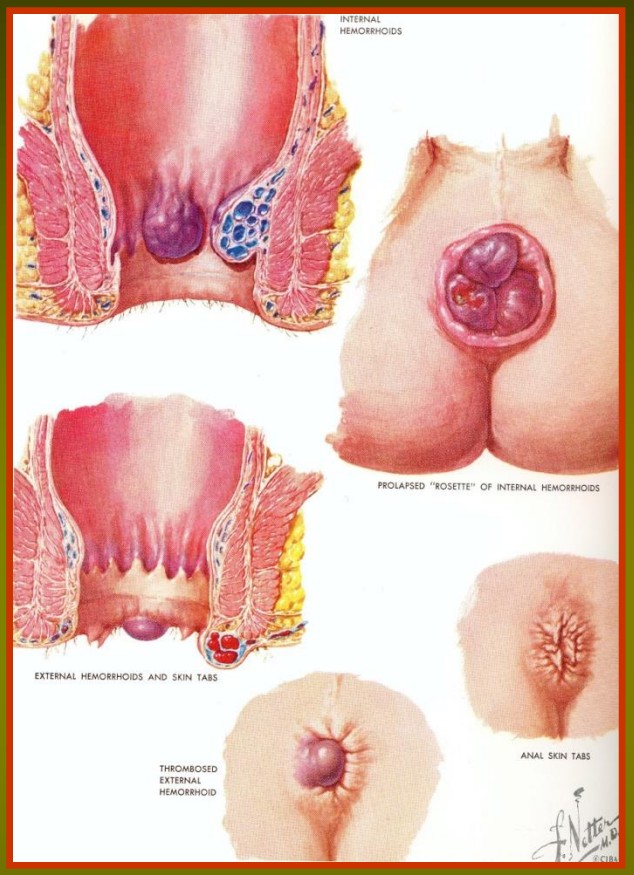
DIVERTICULUM OF THE SMALL INTESTINE IS RARE; IT IS MORE COMMON IN THE LARGE INTESTINE

INTESTINAL PATHOLOGY



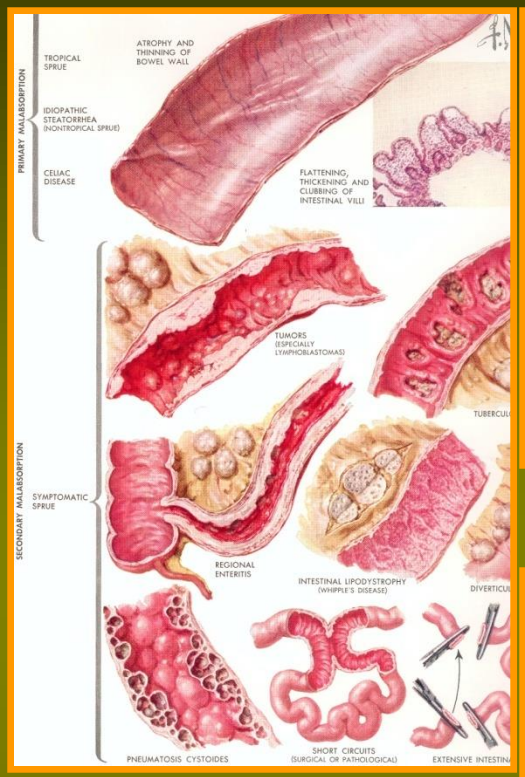
DISTURBANCES IN CIRCULATION

THROMBOSIS OR EMBOLUS OF MESENTERIC VESSELS AND INFARCT IN INTESTINES

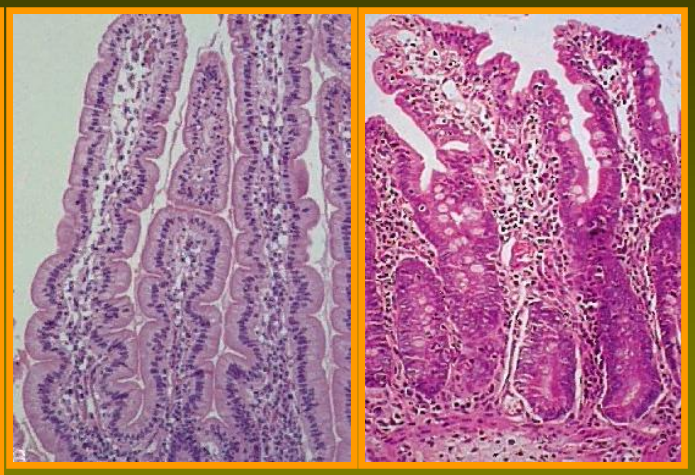


VARICES OF ANUS, VERY COMMON

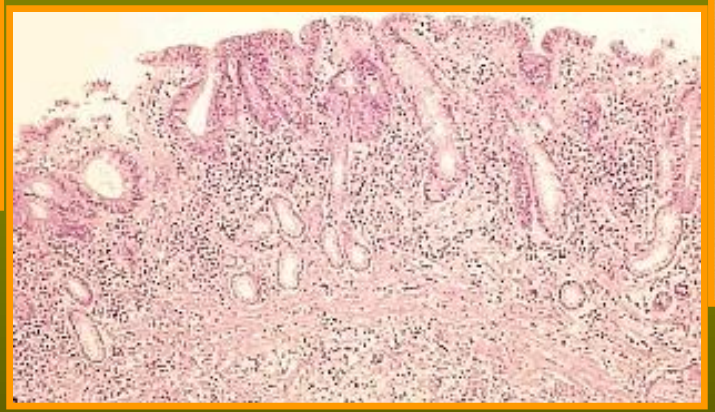
MALABSORBTION SYNDROME



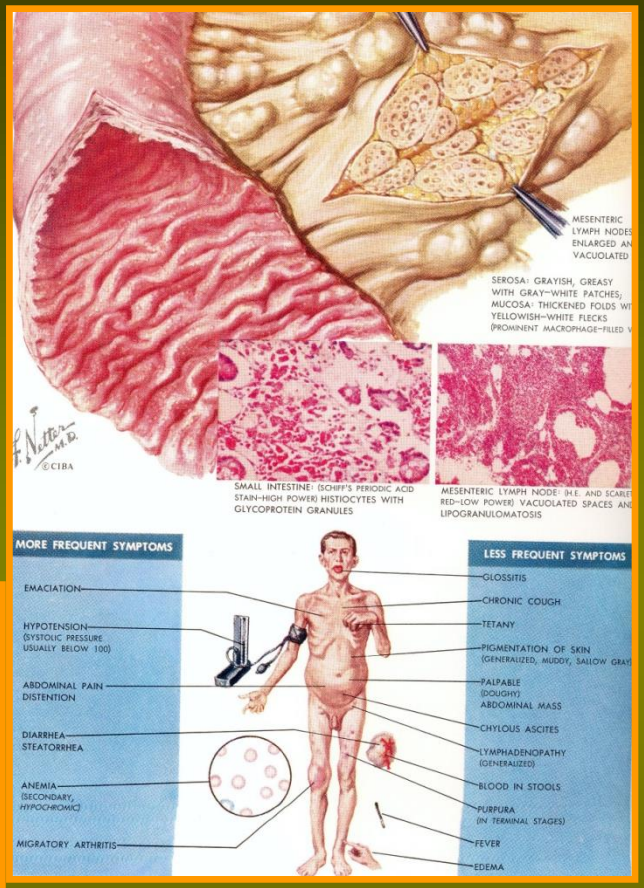
PRIMARY AND RELAPSING MALABSORPTION SYNDROME



NORMAL VILLI **SHORTENING OF VILLI**



ADVANCED ATROPHY OF VILLI



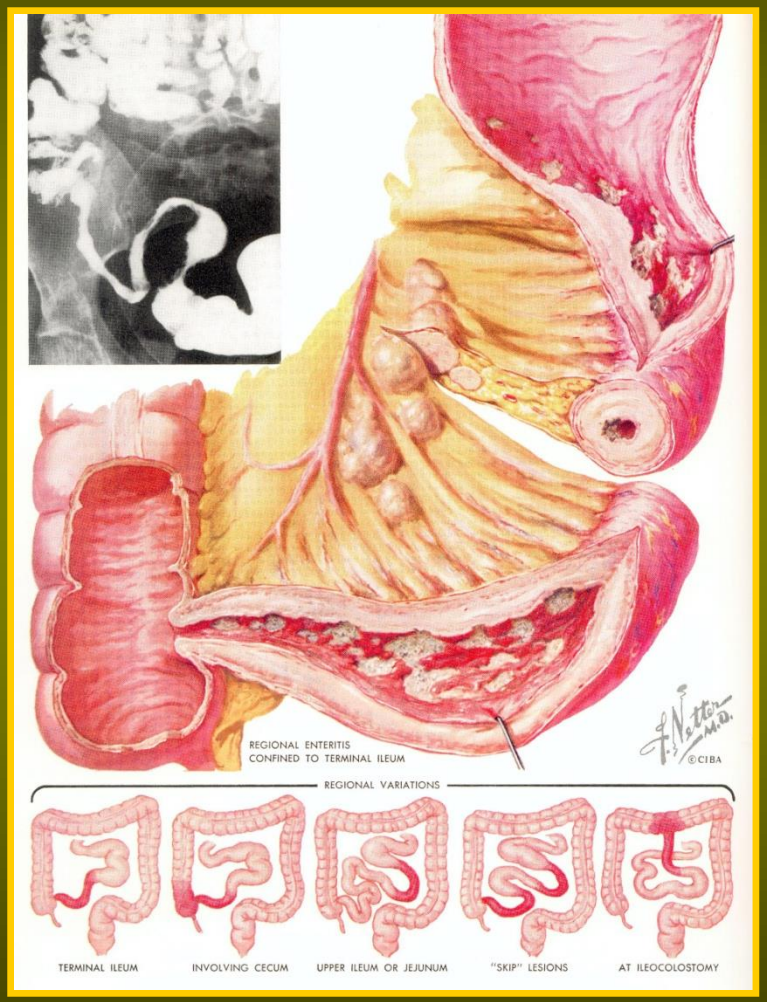
WHIPPLE'S DISEASE

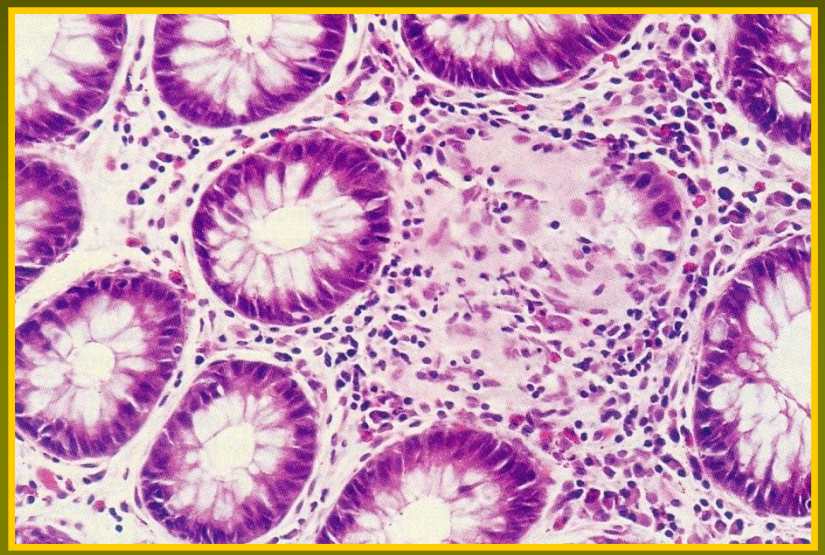
ONE OF THE MOST COMMON SYNDROMES OF MALABSORBTION – <u>GLUTEN ENTEROPATHY</u> INVOLVES AN INTOLERANCE OF GLUTEN. IT IS FOLLOWED BY THE ATROPHY OF VILLI AND DECREASE OF THE ABSORBTION SURFACE. WHIPPLE'S DISEASE IS A SYSTEMIC DISEASE, WITH THE PRESENCE OF VILLI AND MACROPHAGES FILLED WITH GLYCOPROTEINS – LATER PROBLEMS WITH ABSORBTION AND FATTY DIARRHOEA (FAT IN STOOL).

INTESTINAL PATHOLOGY

INFLAMMATION

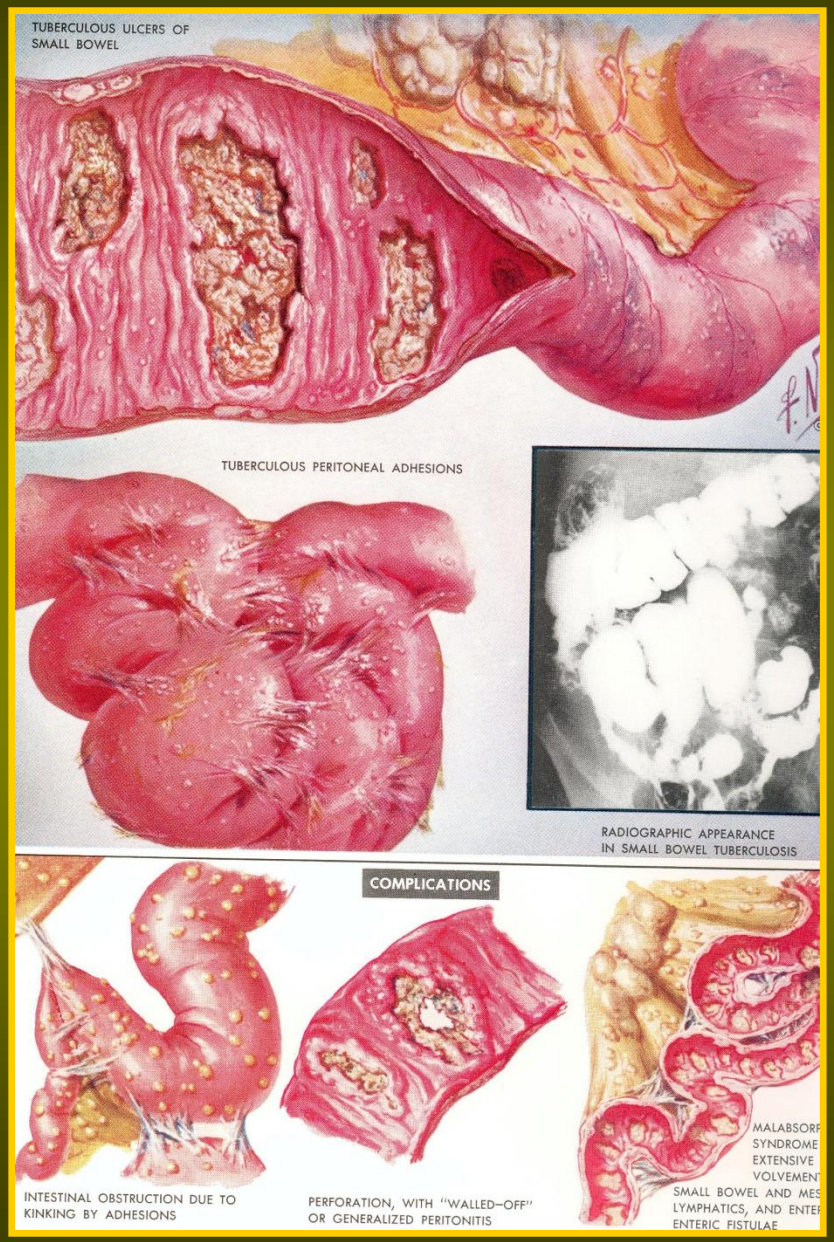
REGIONAL ENTERITIS – CROHN DISEASE





REGIONAL ENTERITIS

TUBERCULOSIS OF INTESTINES

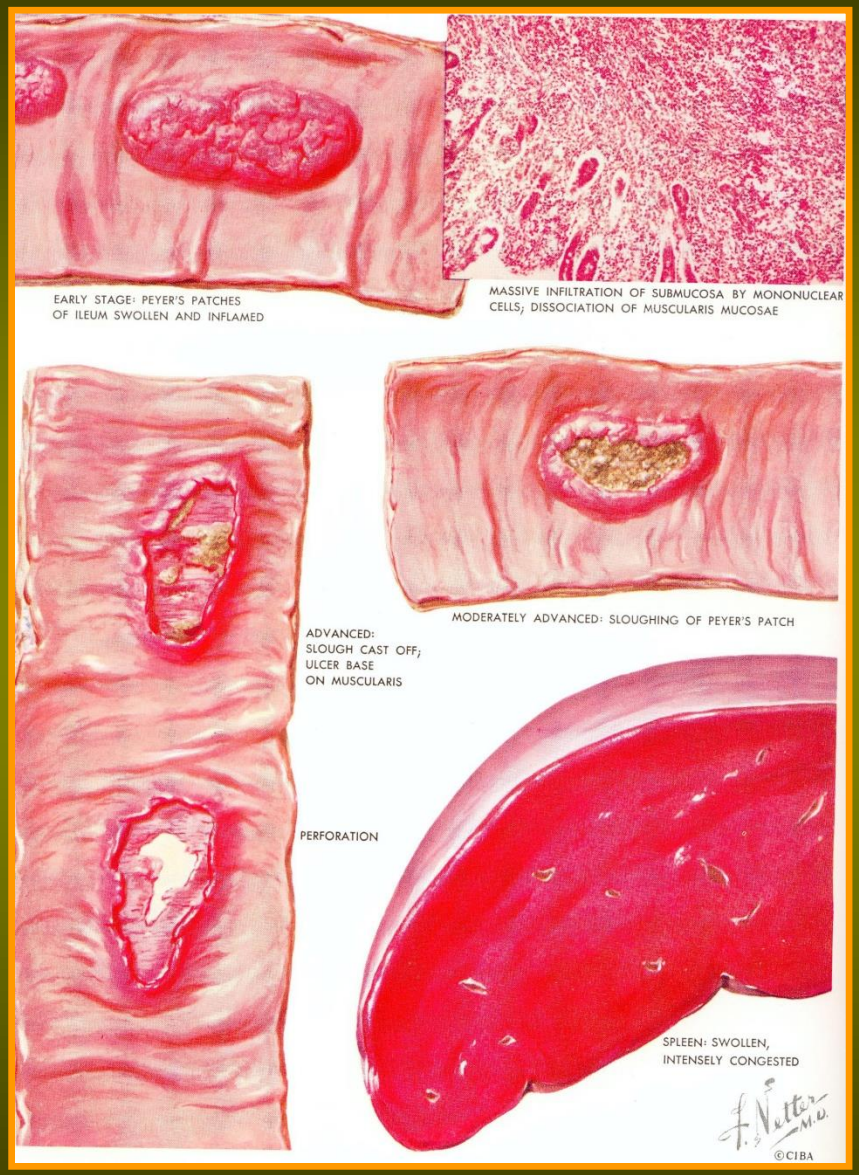


MILIARY TUBERCULOSIS

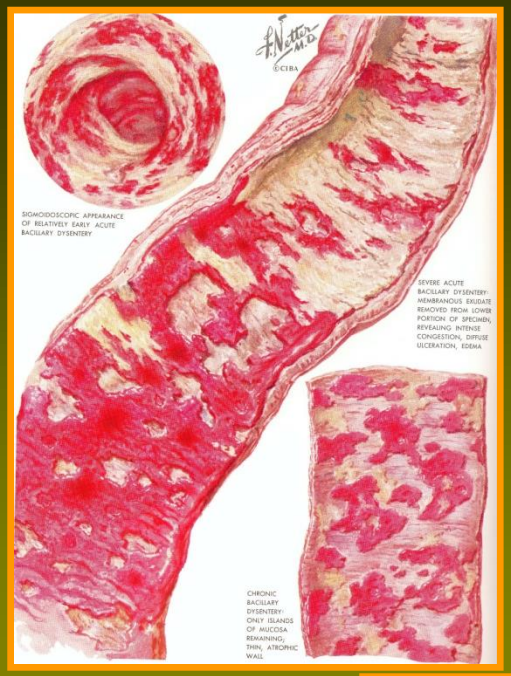
1. PRIMARY TUBERCULOSIS (primary focus usually in the wall of small intestine)
2. POSTPRIMARY TUBERCULOSIS:

A. MESENTERIC TABES
B. ULCERATING TUBERCULOSIS
C. MILIARY TUBERCULOSIS

TYPHOID FEVER - *TYPHUS ABDOMINALIS*



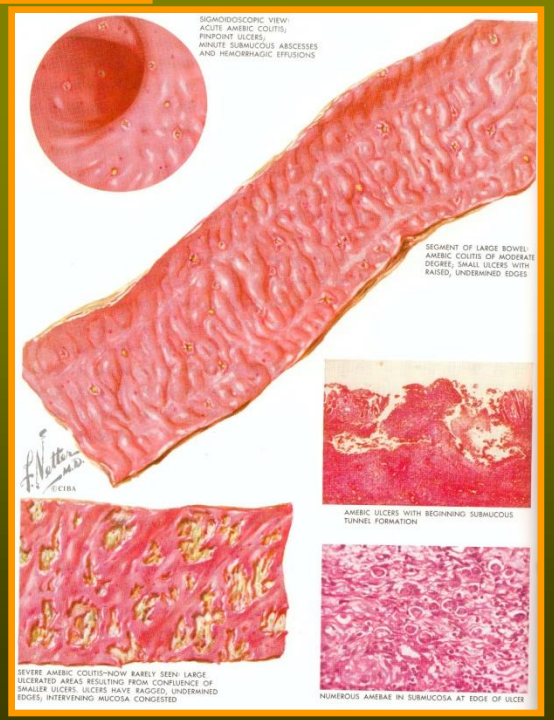
ILEO-COLOTYPHUS



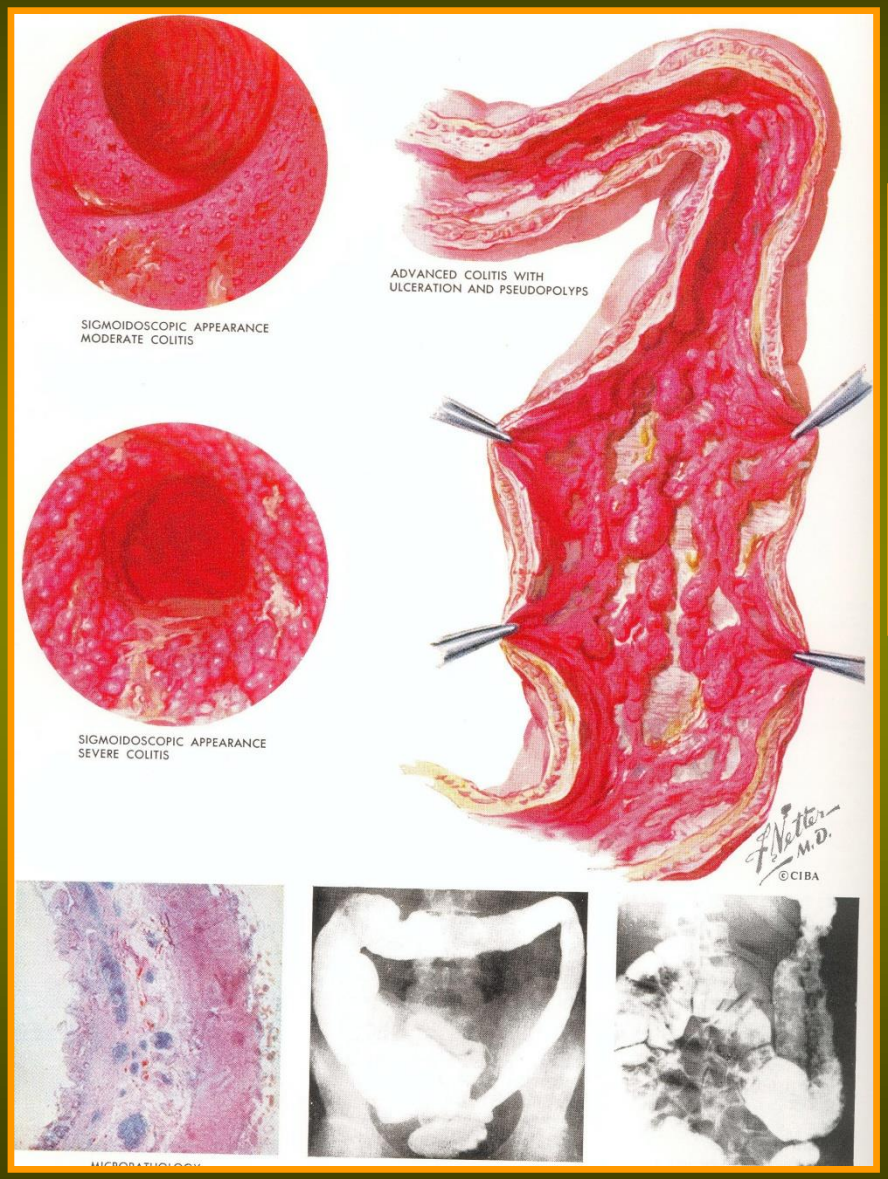
BACTERIAL DYSENTERY

BACTERIA IN THE LEFT HALF OF COLON AND ANUS

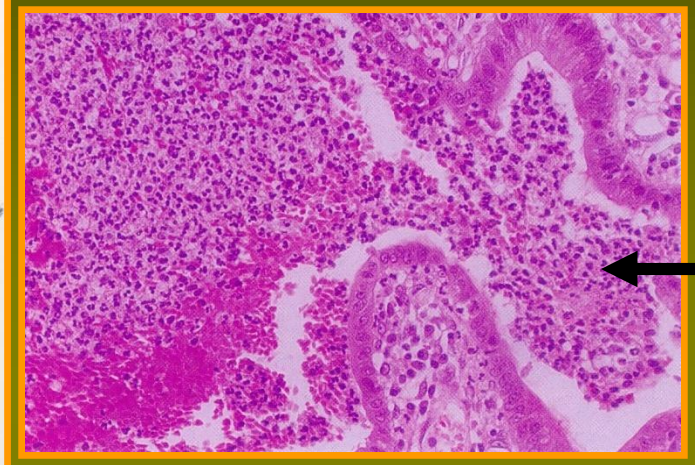
AMEBIC – RIGHT HALF OF COLON



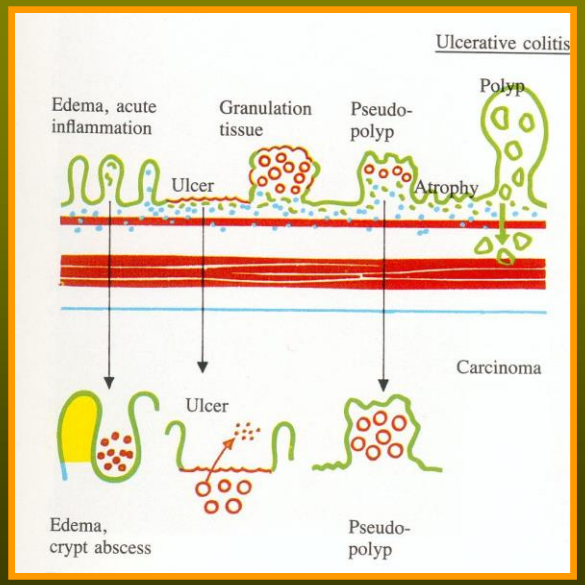
ULCERATIVE COLITIS



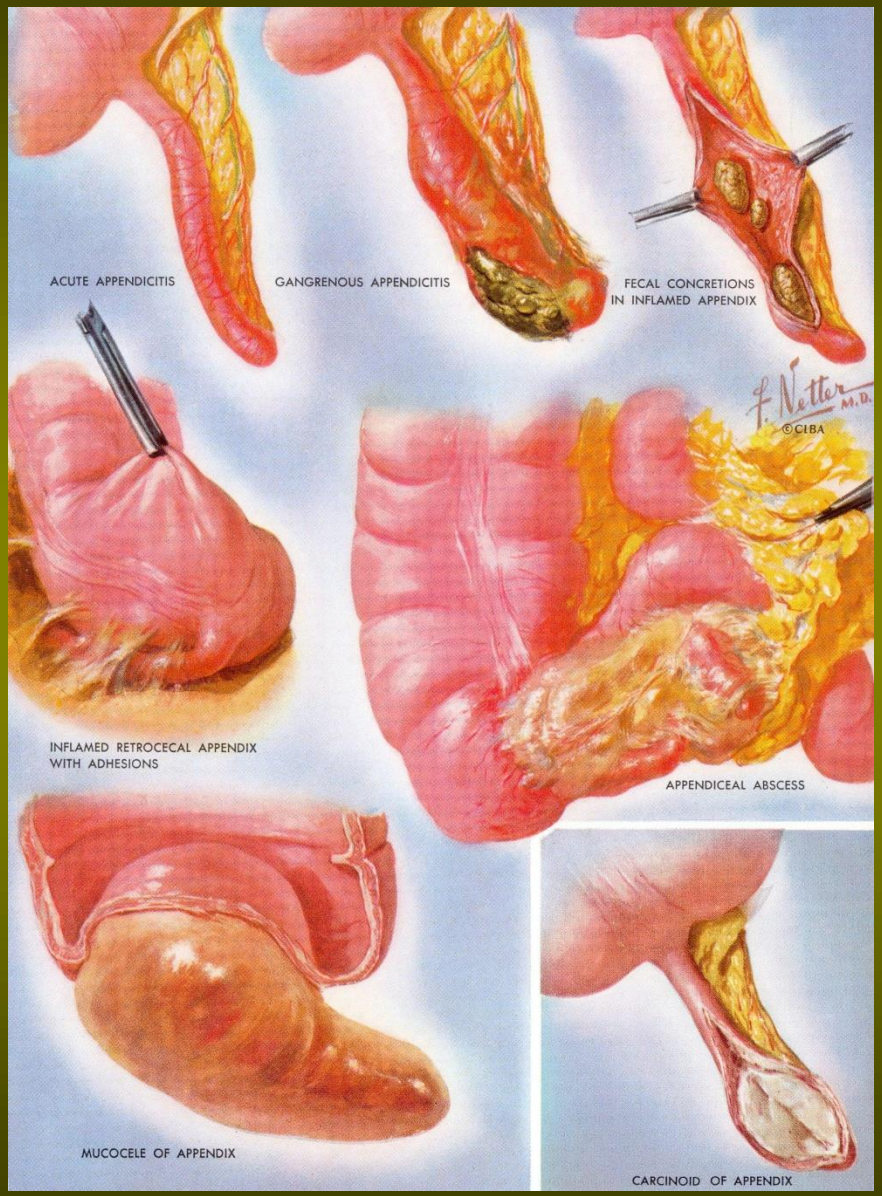
DISEASE THAT IS CHRONIC OR ACUTE, RELAPSING AND OF UNKNOWN ETIOLOGY. PRESENCE OF MULTIPLE ULCERS



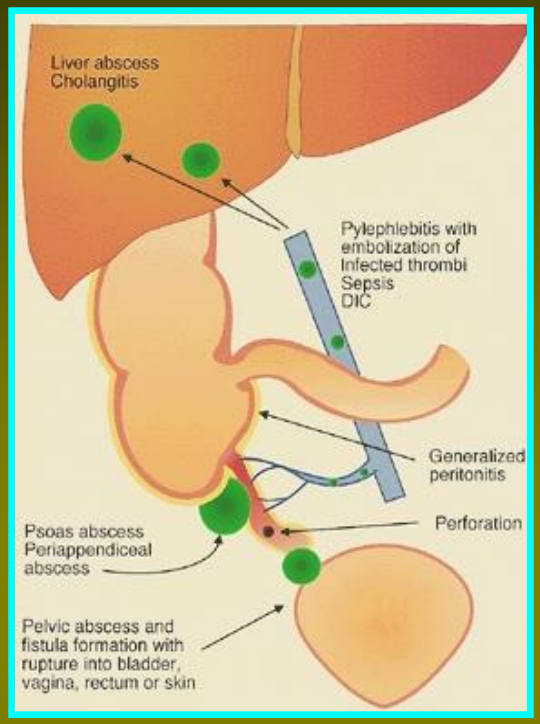
MICROABSCESS

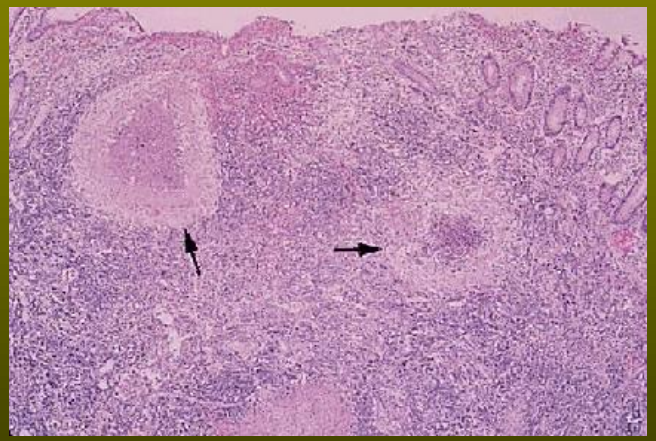


APPENDICITIS



COMPLICATIONS OF APPENDICITIS





YERSINIOSIS


THE END