

역류성 식도질환

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정 현 용

Gastroesophageal Reflux Diseases(GERD)

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Definition

GERD : 위식도역류, 즉 위내용물이나 장내용물이 식도에 역류하여 병리학적인 변화나 증상이 초래된 경우

GER : 생리학적인 역류, 즉 정상적으로 식후에 짧은 시간동안 위내용물이 식도에 역류하는 현상으로 낮 동안에 일어나며 밤에는 거의 없음.

Reflux esophagitis : 위식도역류에 의하여 식도 점막의 상처가 온 경우로 미란, 궤양, hyperplasia 등의 염증소견이 있는 경우.

역류억제기전

1. LES pressure
2. Oblique entry of esophagus to stomach
3. Crural contraction of diaphragm

위식도역류기전

1. Transient LES relaxation
2. Hypotensive LES :
 - ① stress reflux-LES pressure < 10 mmHg
 - ② free reflux-LES pressure- 0 to 4 mmHg
3. Anatomic disruption of diaphragmatic sphincter

: Hiatal hernia

역류성식도염의 병인

1. Hiatal hernia
2. Short esophagus
3. Postoperative state
4. Gastric outlet obstruction
5. Pregnancy and hyperemesis : progesterone effect of LES pressure lowerig and mechanical effect of increased abdominal pressure

Heartburn

: a sensation of warmth or burning located substernally or high in the epigastrium with radiation into the neck and occasionally to the arms heartburn may results from abnormal motror activity or distention of the esophagus, reflux of acid or bile into the esophagus, or direct effect egophageal mucosal irritation(esophagitis)

Atypical presentations of GERD

Noncardica chest pain : 20 - 50%

Pulmonary : asthma, pulmonary fibrosis, cough, aspiration pneumonia, bronchitis

ENT : hoarseness, vocal cord granuloma, laryngeal cancer, halitosis

GERD and hiatal hernia

Inspiratory augmentation of LES pressure---crural contraction of diaphragm-obscure of intrinsic LES relaxation : invreased No. of reflux episode

* Atropine reduces the frequency of reflux by its inhibitory effects on the frequency of trasient LES relaxation : atropineinduced low LES pressure does not preddispose to reflux in healthy subjects(Mittal RK et al : Gastroenterology 1995:109:1547)

Classic symptoms of GERD

- Heartburn(pyrosis)
- Dysphagia
- Odynophagia
- Regurgitation
- Water brash
- Belching

Diagnostic test for GERD

1. Tests for reflux potential : Hiatal hernia and LES pressure<10mmHg
2. Tests for mucosal damage : esophagogram, endoscopy, mucosal biopsy, Bernstein test
3. Test that show reflux : esophagogram, gastroesophageal scintigrapgy, prolonged esophageal PH montoring

Endoscopic findings of esophagitis

- 1) 색조변화형(discoloring type) : 백색흔타과 발적
- 2) 미란. 궤양형(erosive and ulcerative type)
- 3) 융기비후형 (uneven type) : 식도점막의 다발성융기

Savary-Miller classification of reflux esophagitis

- Grade 0 : 정상점막이면서 조직학적으로만 염증이 있는 경우
- Grade 1 : 한개 이상의 비융합성 병변으로 발적이나 미란이 있는 경우
- Grade 2 : 융합성의 미란성 혹은 삼출성 병변이 있으나 전층성은 아닌 경우
- Grade 3 : 미란성 혹은 삼출성병변이 식도 전층성으로 있는 경우
- Grade 4 : 만성 점막병변(궤양, 섬유화, 협착, 상흔을 가진 Barrett's식도)

24hours PH monitoring

(PH가 4이하인 경우를 역류로 규정함)

1. 하루동안의 역류횟수
2. 전체 역류시간
3. 최장 역류시간
4. 5분이상지속된 역류 횟수
5. Fraction time

Atypical GER Symptoms

Bernstein test → (positive) Phase I & II Tx
 ↓ (negative)
24Hrs PH monitoring → (positive) Vigorous Drug Tx
 ↓ (negative)
No GERD
 ↓
Other study : Pulmonary & Endoscopy

Other Causes of esophagitis

- Infection : fungus
- viral
- Radiation injury
- Drugs : doxycycline

potassium chloride
quinidine
emeprium bromide

Corrosives
Achalsia
Alkaline reflux

Therapeutic approach to GERD

Phase I : life style modification elevate head of bed(> 6inch) dietary modification avoid this food : LESP-fats, chocolate, alcohol, carminatives irritants-citrus, tomato, coffee smaller more frequent diet avoid meals 2hrsbefore retiring watch weight stop smoking avoid excessive drinking use antacid

Phase II : vigorous drug therapy

H₂ antagonist(regular dose)
H₂ antagonist(higher dose)
prokinetic drugs : cisapride, metoclopramide, domperidone
omeprazole

Phase III : Antireflux surgery

Strategy for therapeutic model to endoscopic grading

Grade 0 & 1: Phase I Tx
Grade II : Phase I + standard dose H2 antagonist
Phase II
Grade III : Phase I + high dose H2 antagonist
Phase II
Grade IV : Grade III Tx + Omeprazole
↓ (no response)
Operation

Diagnostic and therapeutic algorithm for GERD

Classic GER symptoms
empiric Tx : phase I & II
↓ (no response)
UGI or endoscopy + /-biopsy→
(positive) : vigorous drug therapy
↓ (negative)
24 hrs PH monitoring
↓ (negative)
Manometry : LESP
↓
Antireflux surgery

Management of chronic complication

1. Esophageal stricture : esophageal dilatation : Balloon or S-G dilatation (at least esophageal diameter > 14mm) Operation
2. Barrett's esophagus : treating for underlying GERD managing the risk for development of adenocarcinoma

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