

CHRONIC DIARRHEA

Erwin Budi Cahyono

DEFINITION OF CHRONIC DIARRHEA

- Diarrhea that lasts for more than 2 weeks
- The most reliable assessment :
stool weight > 200 gram/day

PATHOPHYSIOLOGY

- Poorly absorbable
- Active ion secretion
- Deranged intestinal motility
- Altered mucosal morphology
- Miscellaneous

CLASSIFICATION OF CHRONIC DIARRHEA FOR CLINICAL USED

- Steatorrhea
- Watery diarrhea
 - that respond to fast, **ex: maldigesti & malabsorpsi**
 - that may or may not respond to fast
 - that not respond to fast
- Inflammatory diarrhea

STEATORRHEA (MALABSORPTIVE DISEASE)

- Intraluminal maldigestion
 - Cirrhosis and bile duct obstruction
 - Bacterial overgrowth
 - Pancreatic exocrine insufficiency
- Mucosal malabsorption
 - Drug
 - Infectious diseases
 - Immune system diseases
 - Tropical sprue
 - Celiac sprue
 - Dermatitis herpetiformis
 - Whipple's disease
 - Abetalipoproteinemia

STEATORRHEA

- Post mucosal obstruction
 - Intestinal lymphangiectasis
- Mixed causes of steatorrhea
 - Short bowel syndrome

WATERY DIARRHEA, RESPOND TO FAST

- maldigestion
- Carbohydrate malabsorption
- Bile acid diarrhea
- Postvagotomy diarrhea

WATERY DIARRHEA, MAY OR MAY NOT RESPOND TO FAST

- Irritable bowel syndrome
- Food allergy
- Microscopic colitides
 - Collagenous and microscopic colitis
 - Pericrypt eosinophilic enterocolitis

WATERY DIARRHEA, DO NOT RESPOND TO FAST (SECRETORY)

- **Carcinoid syndrome**
- **Gastrinoma**
- **Vipoma (pancreatic cholera syndrome)**
- **Medullary carcinoma of the thyroid**
- **Villous adenoma**
- **Systemic mastocytosis**
- **Factitious diarrhea**
- **Diabetic diarrhea**

INFLAMMATORY DIARRRHEA

- Inflammatory bowel disease
- Eosinophilic gastroenteritis
- Milk and soy protein allergy
- Protein-losing enteropathy
- Radiation colitis
- Miscellaneous disease

RESULT OF COLONOSCOPY IN CHRONIC DIARRRHEA (SEMARANG)

- Colitis
- Colorectal cancer
- Inflammatory bowel disease
- Colorectal polyp
- Radiation colitis
- Ischemic colitis
- Normal

DIAGNOSIS

Symptom and sign

Stool are consistently large in volume

→ Small bowel or proximal colon

Small volume diarrhea with Frequent urges to defecate

→ Usually left colon and rectum

Blood mixed diarrheal stool

→ more likely due to inflammation of the mucosa or neoplasm

Small volume diarrhea, mucus alternating with constipation and abdominal pain

→ Consider IBS (ROME II)

Symptom and sign

Visible oil or fat mixed stool

Indicate steatorrhea

Other special medical history

- **Febrile**
- **Drug intake**
- **Previous history of surgery**
- **Symptom of systemic illness**

PHYSICAL EXAMINATION

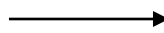
Related to :

- Malnutrition
- Dehydration
- Vitamin and trace element deficiency
- Immunological alteration

LABORATORY FINDINGS

Routine Examination Of The Stool

**Large number of WBC
/pus**



Infection or inflammation.
Infection by viruses, giardia or
organism enterotoxine producer
are not associated with pus

Occult blood



Usually has the same significant
with pus in stool. Blood without
pus consider neoplasm, sprue or
whipple's D

Parasite and helminths

Special Examination Of Stool

Sudan test

→ Steatorrhea, giardia,
malabsorption syndrome

Alkalinization

→ Ingestion of phenolphthalein

**Twenty-four hours stool
volume**

→ Very large volume, consider
pancreatic cholera syndrome

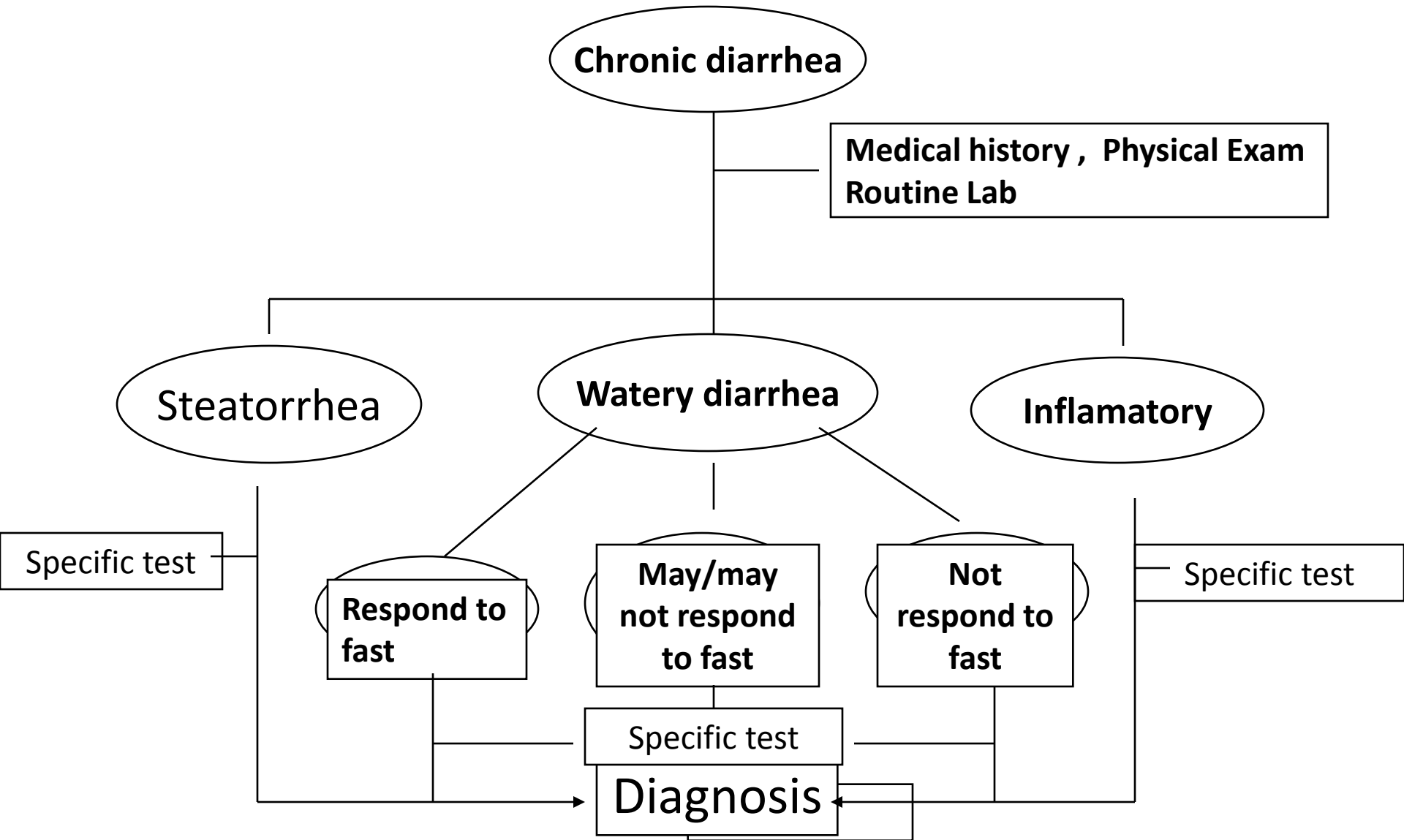
Stool fat

→ Steatorrhea

Culture of stool

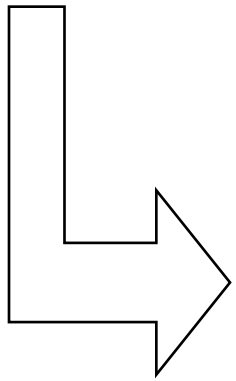
→ Etiology of infective diarrhea

DIAGNOSIS OF CHRONIC DIARRHEA



SPECIFIC LABORATORY TESTS FOR STEATORRHEA

- Fecal fat test



small intestine biopsy (via endoscopy)

malabsorption test

pancreatic function test

Test for bacterial over growth

SPECIFIC LABORATORY TEST FOR WATERY DIARRHEA

- Breath test : H₂ breath test
- Lactose tolerant test
- Test for bile acid malabsorption
- Hormone level in urine and blood
- Colonoscopy

SPECIFIC TEST FOR INFLAMMATORY DIARRHEA

- colonoscopy
- labeled leukocyte test
- Test for enteric protein lost
 - albumin labeled clearance

TREATMENT

- Supportive therapy.
- Symptomatic treatment

Ameliorate the disease



Reduce the severity of the disease.

- Cure the underlying disease

SUPPORTIVE TREATMENT

- Prevention and correction of salt and water depletion

SYMPTOMATIC TREATMENT

- Opiates, loperamide

Reduce bowel movement frequency, urgency and stool volume

→ Should not be used in case of severe IBD induction of toxic megacolon.

OPIATE/LOPERAMIDE

- May reduce urgency, frequency of stool And bowel movement

- Should not be used :

 - severe IBD

 - Shigellosis

 - Other invasive bacteria

 - Antibiotic associated diarrhea

ANTI SECRETORY DRUGS

- NSAID/Aspirin
reduce prostaglandin mediated diarrhea
- Glucocorticoids
reduce mucosal inflammation and enhance NaCl absorption
- Nicotinic acid, Clonidine, lithium carbonate
Enhance intestinal absorption
- Stomatostatin analog/synthetic
may reduce diarrhea mediated by tumor

CURE THE UNDERLYING DISEASE

- Infective diarrhea

Antimicrobial chemotherapy

Proven efficacy : v. Cholerae
(Bacterial) ETEC
Shigellosis (dysenteric)
Severe salmonellosis
C. Difficile
Yersinia
Campylobacter dysentri

Antimicrobial chemotherapy

Proven efficacy : Giardia intestinalis
(protozoa) Encephalitozoon intestinalis
Isospora belli
Cyclospora cayetanensis
Entamoeba histolytica
Balantidium coli