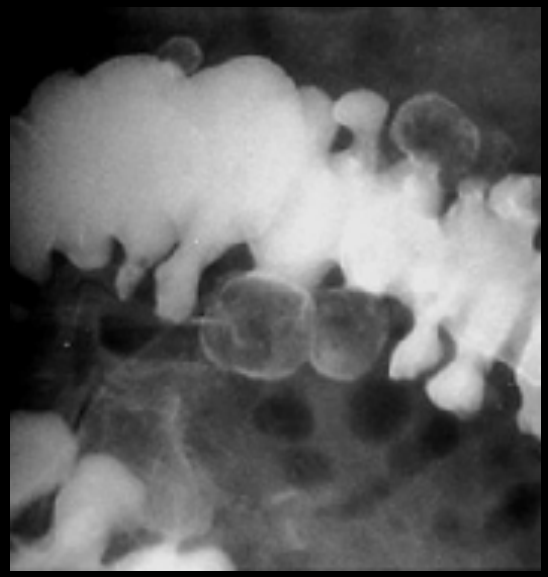
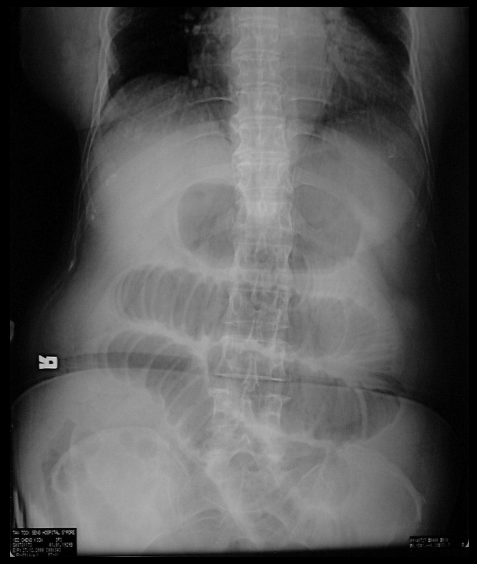
DIVERTICULAR DISEASE
INTESTINAL OBSTRUCTION

R Sim

R1 /R2 Talk

26 Jan 2001





Diverticular disease of the colon

Pathophysiology
Prevalence, Natural history
Symptomatology
Complications
Diagnostic adjuncts
Medical treatment
Indications for surgery
Surgical principles
Surgical options

Terminology

Basic Terminology Pertinent to Diverticular Disease

True diverticulum	Contains all layers of bowel wall
False diverticulum	Absence of muscular layer
Diverticulosis	Noninflamed diverticula
Diverticulitis	Inflamed diverticula
Diverticular disease	Entire disease spectrum
Uncomplicated diverticulitis	Includes phlegmon, peridiverticulitis
Complicated diverticulitis	Includes abscess, fistula, obstruction, or free perforation
One-stage procedure	Resection and anastomosis without a stoma
Two-stage procedure	Includes stoma and resection
Three-stage procedure	Stoma usually at first stage

Historical Studies

Early Anatomic and Pathologic Studies

1793	Mathew Baillie's *Morbid Anatomy* describes "scirrhus" of the sigmoid
1849	Cruveilhier makes first detailed account and notes fistulas
1899	Graser shows relation of diverticula to blood vessels
1904	Beer summarizes clinical and pathologic aspects
1907	Terrill proposes terms "diverticulosis" and "diverticulitis"
1908	Telling collects 105 cases, with discussion of clinicopathologic aspects
1910	Keith attributes diverticula to high intracolic pressures
1916	Drummond describes pericolonic vessels and diverticula
1917	Telling and Gruner publish detailed pathophysiologic and clinical studies
1961	Griffiths describes arterial blood supply of colon
1962	Slack defines position of colonic circumferential blood vessels to diverticula in autopsy-surgical specimens

Surgical trends

Important Surgical Historical Trends

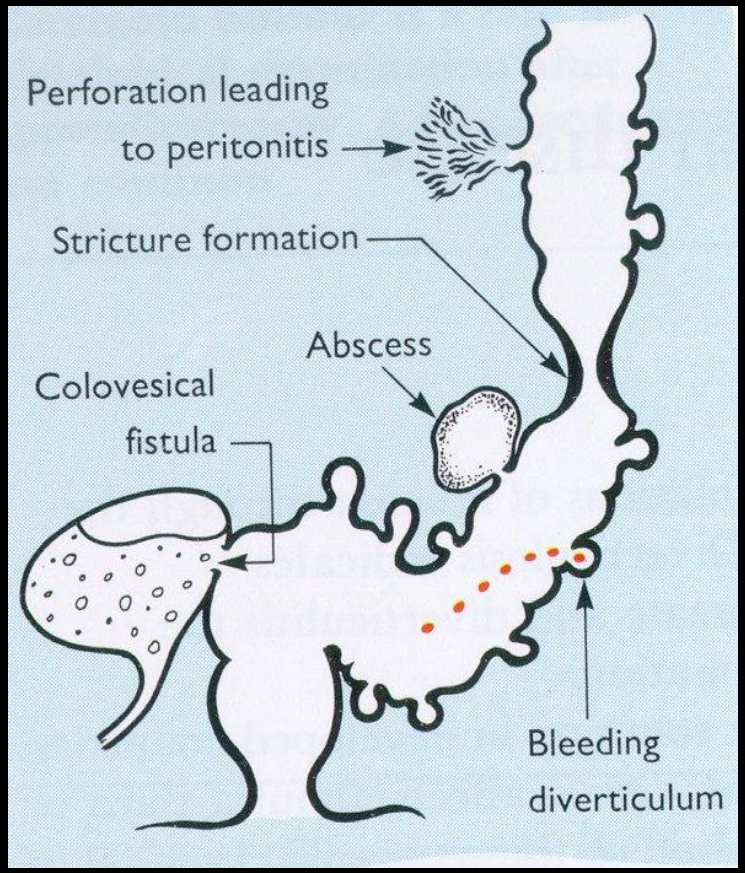
1940s	Three-stage procedures for complicated disease
1950s	One-stage resection/anastomosis for uncomplicated disease
1970s	Questioning of three-stage operations
	Aggressive primary resection of primary focus
	Popularity of Hartmann procedure
1980s	Use of percutaneous drainage for abscesses
	Selective anastomosis in presence of perforation
1990s	On-table lavage for obstruction, some cases of perforation
	Limited use of laparoscopic resection for elective resection

Surgical trends

Surgical Trends in Diverticular Disease

Abandonment of three-stage procedures
More aggressive use of resection
Longer lengths of resection
More accurate bleeding localization and resection
Use of on-table lavage
Use of CT scans for diagnosis
Percutaneous drainage of abscesses

Complications



Bleeding 15%, 5%massive

Spontaneous arrest 70%
Rebleed 30%; 50% after 2nd episode

Diverticulitis 15-20%

Complications 20%; 50-60% with 2nd episode
Abscess 40-50%
Stricture/Obstruction 10-30%
Free perforation 10-15%
Fistula 4-10%

Intestinal Obstruction

Is there intestinal obstruction?

Where is the level of obstruction?

What is the cause of obstruction?

Are there any complications?

Principles of Surgery

Relieve obstruction

Resect pathology

Reconstitute bowel continuity

Choice of operation

Patient factors

Disease factors

Surgeon factors

Pseudo-obstruction

TABLE 1. *Secondary Causes of Intestinal Pseudo-obstruction*

- Collagen vascular disorders
  - Progressive systemic sclerosis (scleroderma)
  - Dermatomyositis, polymyositis
  - Systemic lupus erythematosis
  - Ehlers–Danlos syndrome
- Neurologic disorders
  - Parkinson's disease
  - Hirschprung's disease
  - Chaga's disease
  - Familial autonomic dysfunction
  - Psychosis
- Endocrine disorders
  - Hypothyroidism
  - Diabetes mellitus
  - Hypoparathyroidism
  - Pheochromocytoma
- Miscellaneous disorders
  - Jejunoileal bypass
  - Jejunal diverticulosis
  - Carthartic abuse
  - Amyloidosis
  - Sclerosing mesenteritis

Pseudo-obstruction

TABLE 2. *Metabolic or Drug-induced Intestinal Pseudo-obstruction*

Pharmacological causes
Phenothiazines
Tricyclic antidepressants
Antiparkinsonian medications
Ganglionic blockers
Clonidine
Amanita mushroom poisoning
Electrolyte abnormalities
Hypokalemic, hypochloremic alkalosis
Hyponatremia
Hypercalcemia

Pseudo-obstruction

Neostigmine for the treatment of acute colonic pseudo-obstruction

N Engl J Med 1999 Jul 15;341(3):137-41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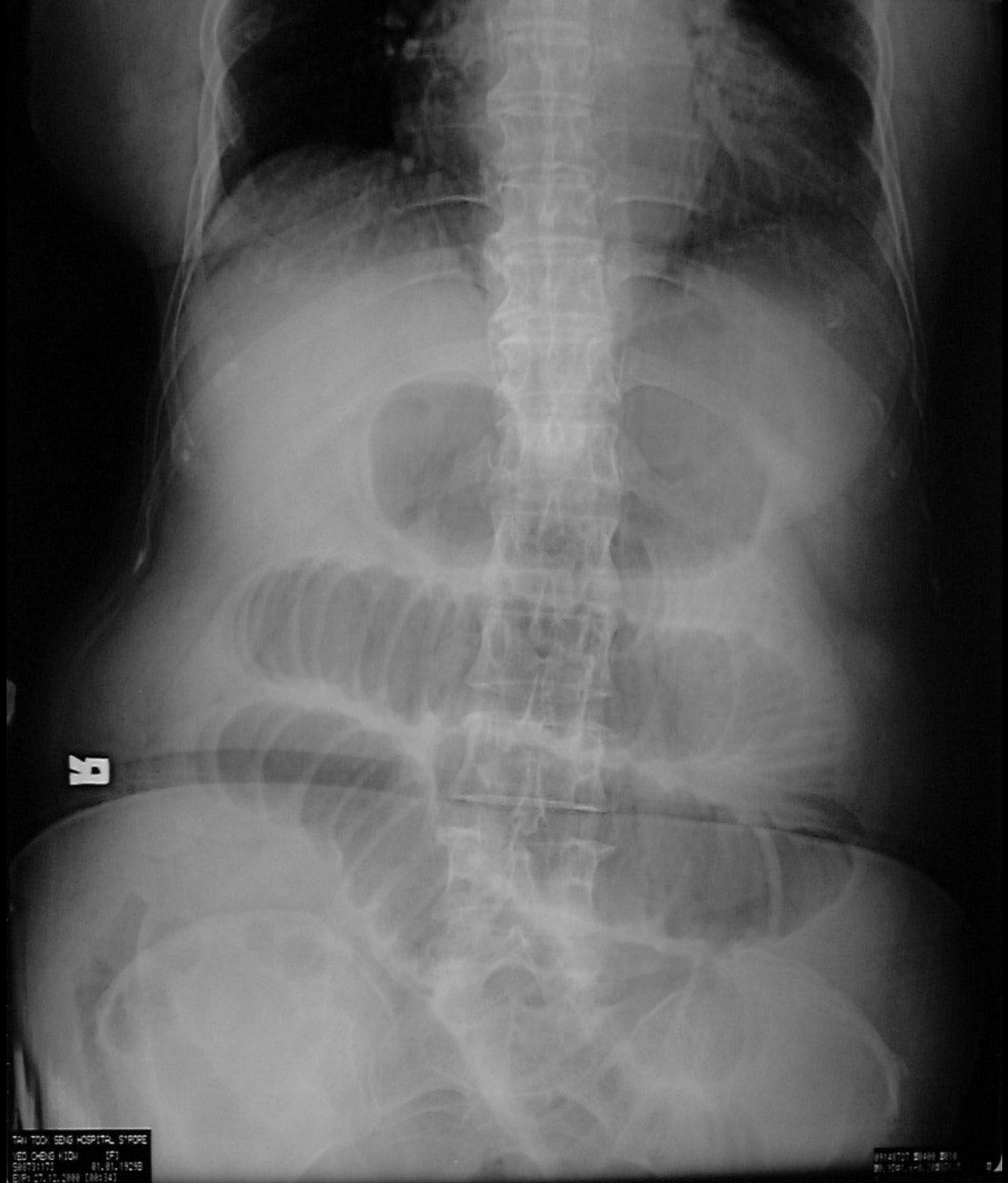
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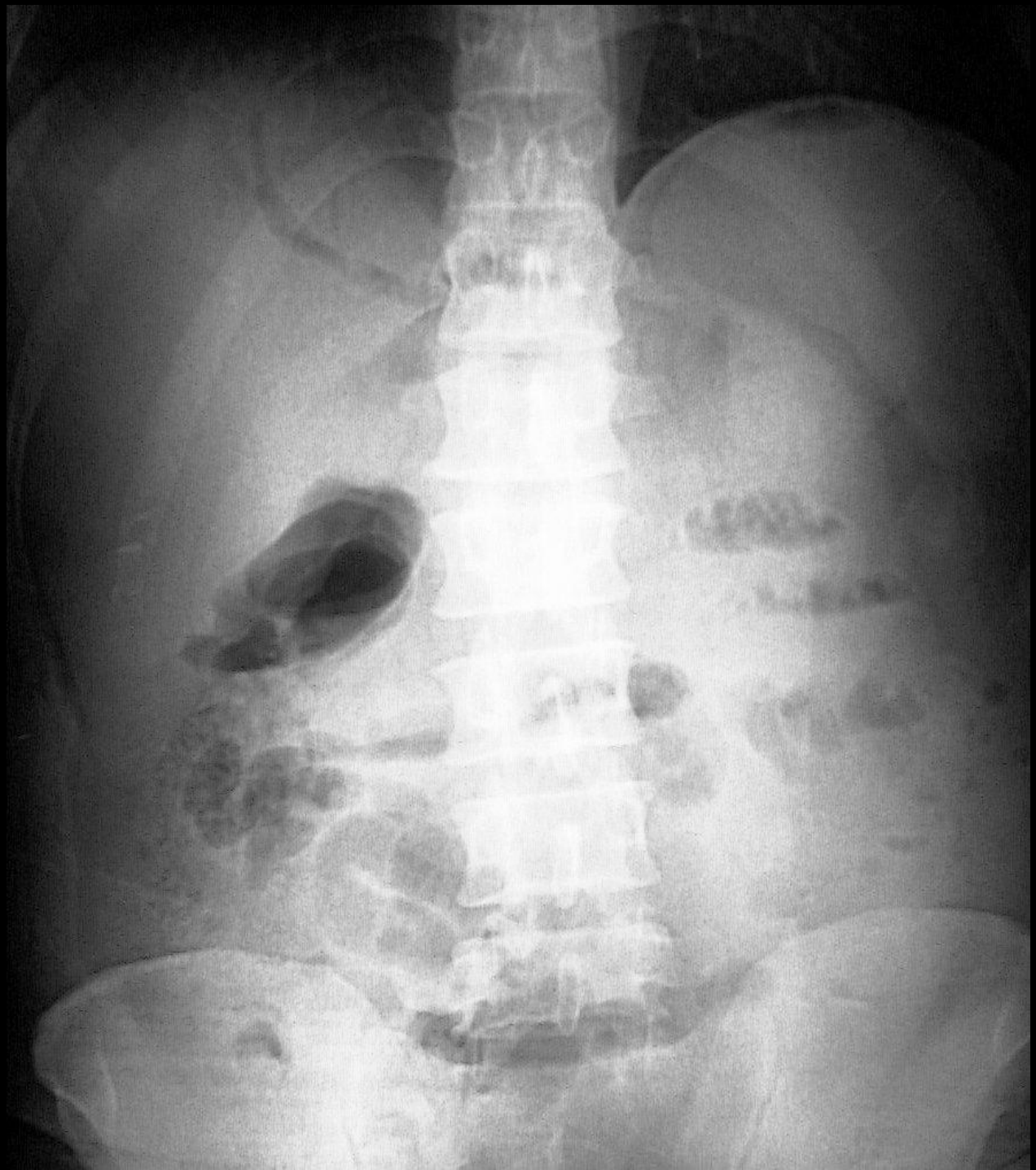


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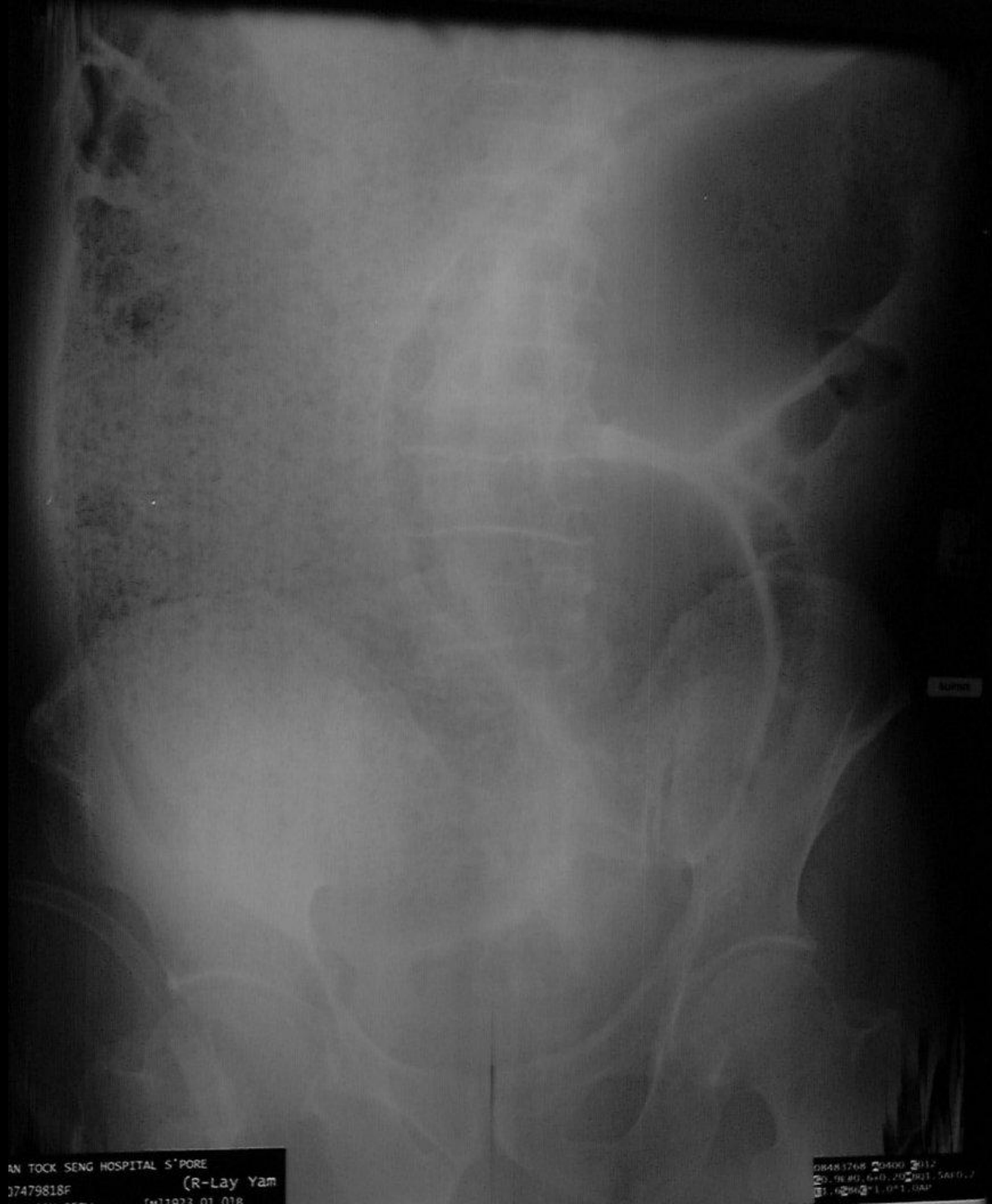
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