



## IMAGING 1

Teodor Horváth & Jindřich Vomela, Filip Marek, Igor Penka, Jiří Podlaha with kind cooperation by Peter Matkulčík & Miriama Šmajerová © MMXX CZ BRNO EU

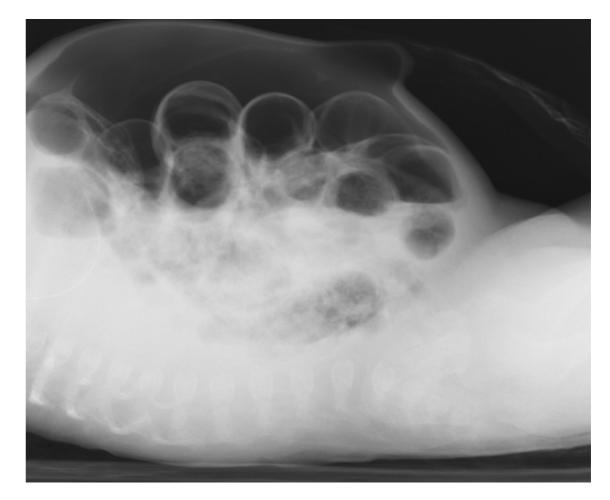
#### HELLO CLINICIAN, WE ONLY SUPPORT AND PARTICULARIZE YOUR CLINICAL WORKING DIAGNOSIS.

ileus pneumoperitoneum subphrenic abscess gallbladder stones and choledocholithiasis scaphoid fracture skull impression rib fracture pneumonia pneumothorax pericardial effusion pleural effusion vertebral compression fracture hip fracture march fracture e.g. 5th metatarsal

N. B. Despite of often crucially important, remains the imaging an auxiliary method - like all other paraclinical examinations.

#### ILEUS





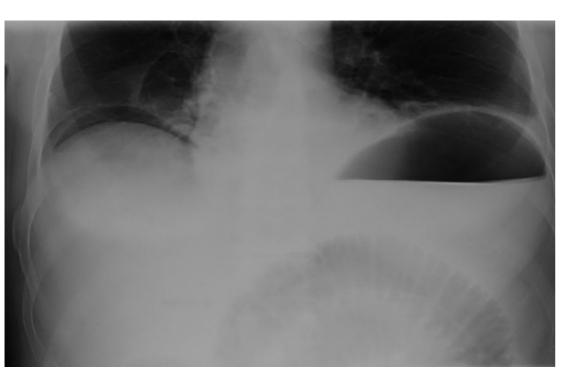
## HYDROAERIC SYNDROMA THE LEVELS IN DILATED SMALL BOWEL

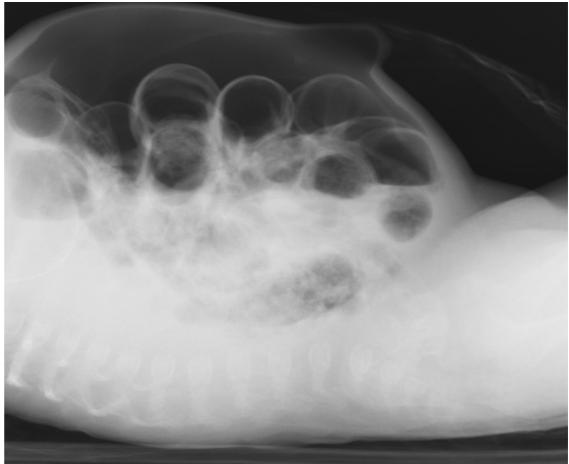
EXCLUDE OR CONFIRM (!) UMBILICAL, GROIN AND FEMORAL HERNIA

N. B. Abdominal pain, nausea, vomiting, abdominal distension, failure to pass flatus and feces.

Hyperactive – vigorous peristalsis at the beginning of the obstruction is followed by minimal or no bowel sounds, localised tenderness and rebound phenomena.

### PNEUMOPERITONEUM



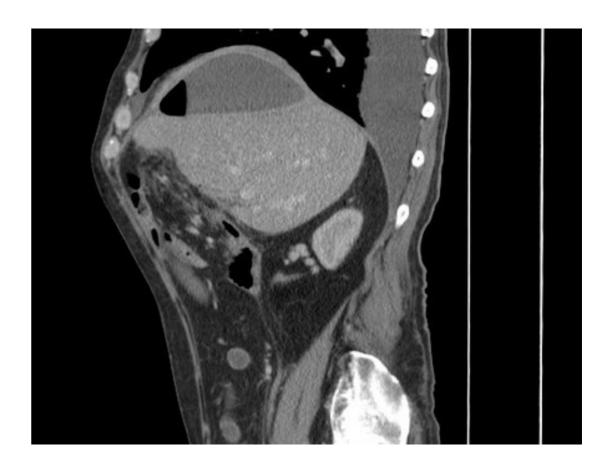


#### GAS SICKLE IN THE SUBFRENIC AREA

N. B. X-rays centered in upright position subphrenically (do not mistake for the bubble of gas within the stomach); or in lying patient horizontally confirm presence of free gas behind the abdominal wall. This situation corresponds as a rule with abdominal guarding – défense musculaire.

## SUBPHRENIC ABSCESS

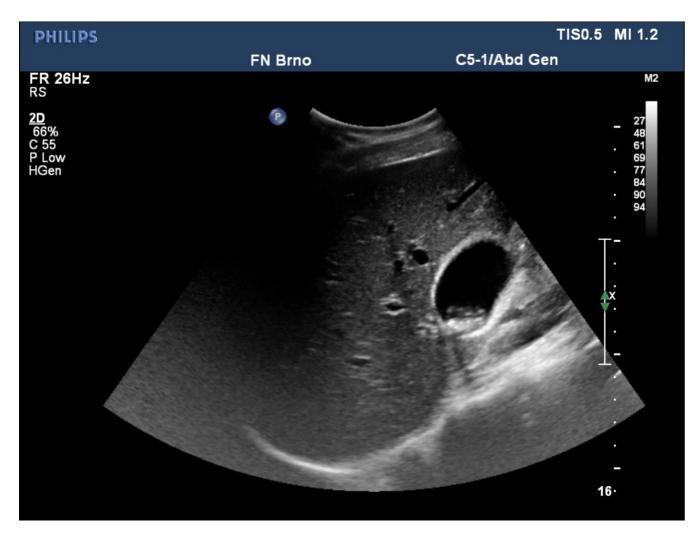




#### FEVER OF UNCERTAIN ORIGIN

N.B. Postoperative fever of uncertain origin in patient after abdominal intervention approximately one or more weeks after the operation encourages surgeon to consider this.

# CHOLECYSTOLITHIASIS CHOLECYSTITIS





#### SELECT CEAREFULLY PTS FOR IMMEDIATE SURGERY AND ELECTIVE TREATMENT

N. B. Typical gallstone attack / biliary colic is relatively simple diagnosis. The biliary dyspepsia needs more endeavour.

#### SCAPHOID FRACTURE

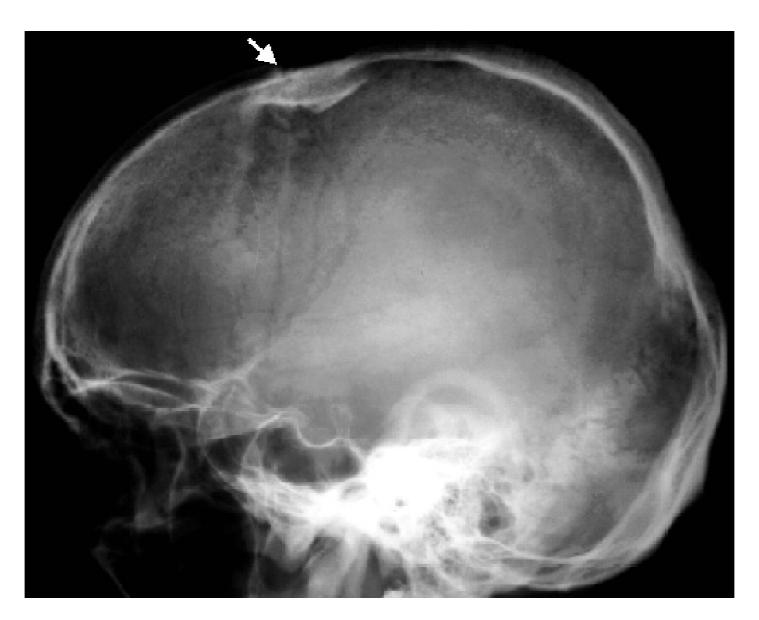


#### BEAR IN MIND RADIAL FOSSA / SNUFFBOX / FOSSA LA TABATIÉRE

N.B. Closely after injury can be X-ray finding silent. Strong clinical suspection justify appropriate immobilisation including MP I joint. The patient is invited to follow up X rays ten days later.

Amidst all body organs the hand possesses highest respect of surgeons.

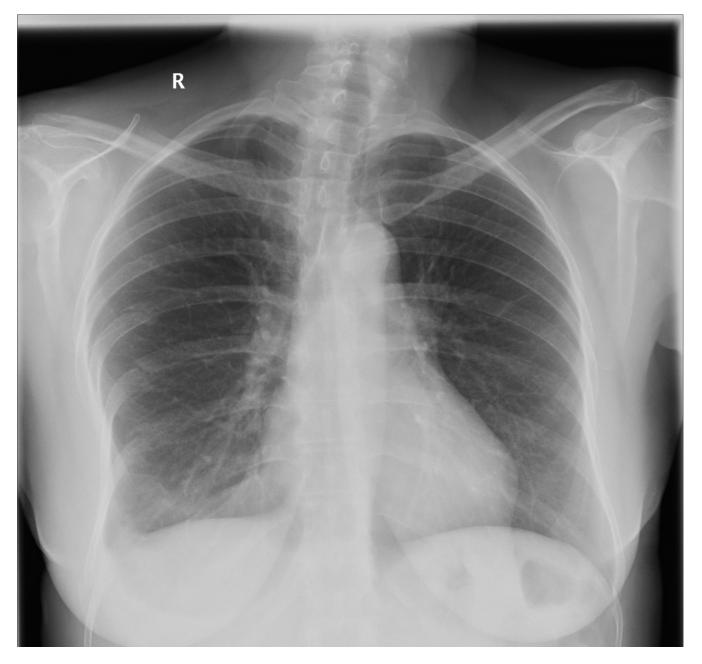
## SKULL IMPRESSION



PONDER THE STATUS OF PUPILS

N. B. The diagnosis of the fracture of the cranial portion of the skull is usually clearer as its basilar fracture. Do not forget repeated investigation to exclude or confirm this by the rhinorrhea, otorhea, and/or periorbital ecchymosis.

## RIB FRACTURE



#### SEARCH FOR BONE CREPITATION BY GENTLE PALPATION. THE PAIN DOMINATES.

N.B. Do not forget potential PNO. Auscultate the lungs! Do not forget potential injury of the spleen and the liver. Examine the abdomen! Adequate treatment of pain prevents pulmonary inflammation, in COPD patients and smokers especially.

## **PNEUMOTHORAX**



## COMPARE CAREFULLY BRONCHOVASCULAR PATTERN IN THE RIGHT AND LEFT UPPER, MEDIUM, AND LOWER PULMONARY FIELD.

N. B. Thoracic pain, exertion dyspnea, cough...or only shortening of the breathing.

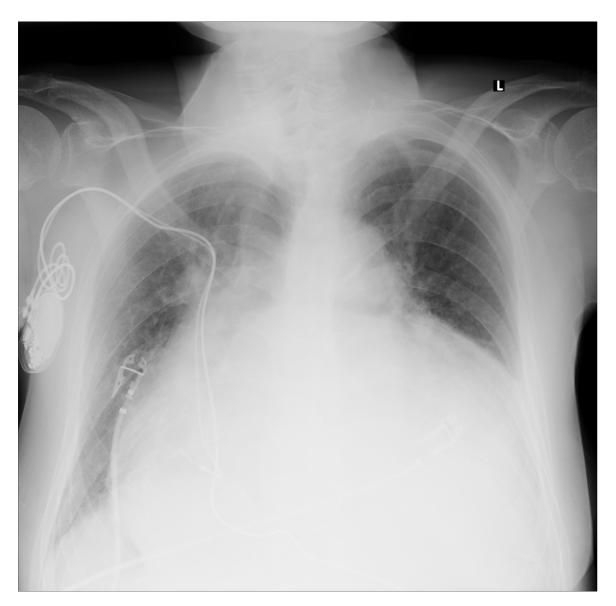
## **PNEUMONIA**

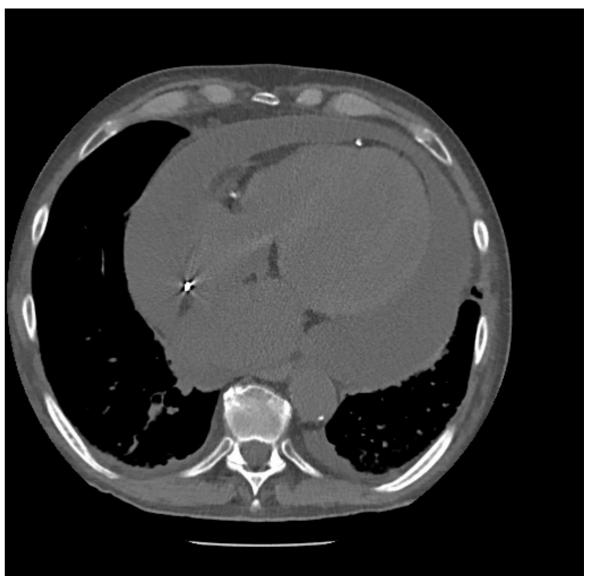


## THE PREVENTION REQUIRES STOP SMOKING PREOPERATRIVELY AND POSTOPERATIVE EXERCISING

N.B. Pneumonia would have at the beginning discrete auscultatory finding. What dominates in clinical feature? The alteration in the general status, dyspnea, fever, tachycardia. X-rays could confirm or exclude the clinical suspection... three days later after its onset.

## PERICARDIAL EFFUSION





#### PERICARDIAL FRICTION RUB DYSPNEA WITH TREND TO ARTERIAL HYPOTENSION, AND BRADYCARDIA

N.B. Excessive amount of fluid can lead to cardiac tamponade

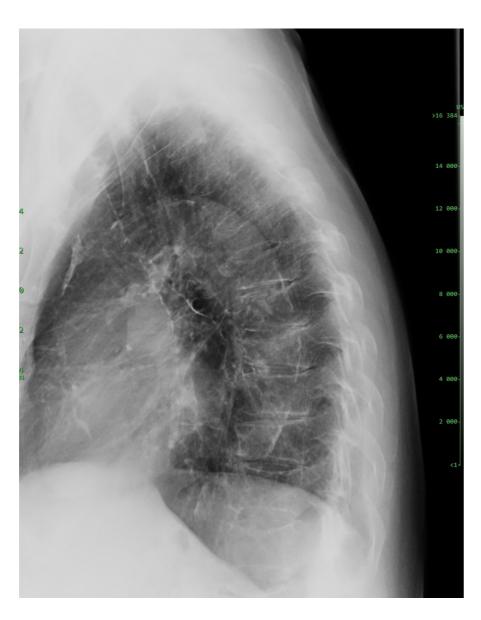
## PLEURAL EFFUSION

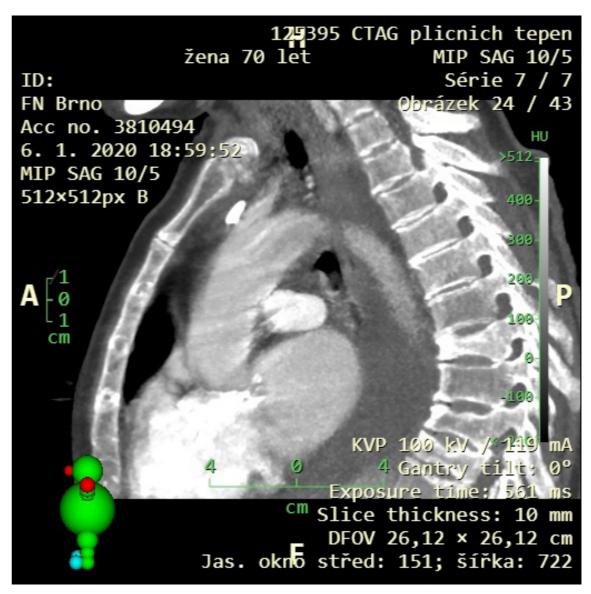


### IN SURGICAL PATIENTS RELATIVELY FREQUENTLY SEEN AS REACTIVE PROCESS CAUSED BY ABDOMINAL PATHOLOGY.

N.B. Pleural rub at the beginning of pleuritis is later replaced by dull percussion and weakening of breath sounds.

# VERTEBRAL COMPRESSION FRACTURE





#### WIDE FIELD OF THORACIC PAIN HIDES MORE SURPRISES

N. B. Thorough patient history and careful physical examination result in exact early diagnosis - as in many other conditions.

### HIP FRACTURE



#### BECOME AWARE OF SHORTENING AND ROTATION OF INJURED LIMB

N.B. Consider the site of the injury: subcapital, transcervical, intertrochanterical, greater and lesser trochanter. Wedged subcapital fracture can be overlooked. What is important? The clinical feature.

#### MARCH FRACTURE

#### e.g. 5th METATARSAL BASE FRACTURE





#### UNACCUSTOMED LOAD IS UNHEALTHY

N. B. Tarsal or metatarsal bones are afflicted usually.

If you are in want to proof your physical condition, please do not this untrained.

# Closing Remark

#### BENEFIT FOR PATIENT IS THE BEST GUIDELINE

SALUS AEGROTI SUPREMA LEX

**CLOSE INTERDISCIPLINARY COOPERATION IS NEEDED** 

M ©th