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**A 65-year old woman admitted to IM Unit
with general deterioration**

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Clinical History

A 65-year old woman was admitted to Internal Medicine ward with ankle edema, abdominal distension, decreased urine output and nocturnal dyspnea of one week duration

Personal Clinical History (background)

No toxic habits, relatively previous active life.

She was single, independent and without cognitive impairment

Bronchial Asthma (mild). No previous hospital admissions

Aspirin allergy

Hypercholesterolaemia. Hypertension

Regular Treatment with bronchodilators, pantoprazole, thiazide diuretic and lorazepam No other significant data were obtained

Current disease

She complained of progressive asthenia, anorexia and weight loss (about 10 kg) in the last 3-months

Relatives said that in the previous days they had noticed some lack of concentration, inattention and slow thinking

Mild fever (37,3 – 38°) last week

No pain in abdomen, thorax, joints and no inflammatory skin lesions nor other significant symptoms.

Clinical Exam

Blood Pressure: SBP **190** mm Hg. DBP **100** mm Hg. Temp. **37°** weight **78** Kg Height **1.60** m BMI **30.5**.

Normal skin color. Normal mental status (awake and orientated). Mild tachypnea.

Head: normal pharynx ,

Neck: no goiter , normal jugular venous pressure, small bilateral cervical lymphadenopathy

Heart : regular rhythm with no murmurs

Lung Auscultation: wheezes and crackles isolated in both bases

Abdomen: no tenderness, no abnormal findings.

Limbs : severe limb bilateral oedema (mostly maleolar and pretibial). Joints normal.

Neurological examination: normal

Questions and Comments

What are the main problems of the case ?

(just a general overview)

Initial analysis

Blood :

Coulter: Hb 12.2 g/dl. MCV 88 fl. Leuco 7.500 Platelets 133000 /mm³.

Sedimentation rate 25 mm Coagulation: INR 1.1. Fibrinogen 544ng/dl (NR 200-400 mg/dL)

Biochemical:

Glucose 82.0 mg/dl. ALT **60** U/l. AST **50.0** U/l. GGT 14.0 U/l.Br T 0,7 mg/dl (normal),

Alk Phos 60 U/l (NR 44-147 UI/L) LDH **604** 0 U/l.(NR 100-220 U/l),

Prot **4,5** gr/dl, Alb **2,6** gr/dl

Sat O₂ 95,4% (100%O₂) (Basal Arterial Gas: P_{O2} **69** PCO₂ 39 Ph 7.35 Bic 19)

Creatinine **1,1** mg/dl. FR **55** ml/m Urea **78** mg/dl. Na **130** mEq/l. K **5** mEq/l.

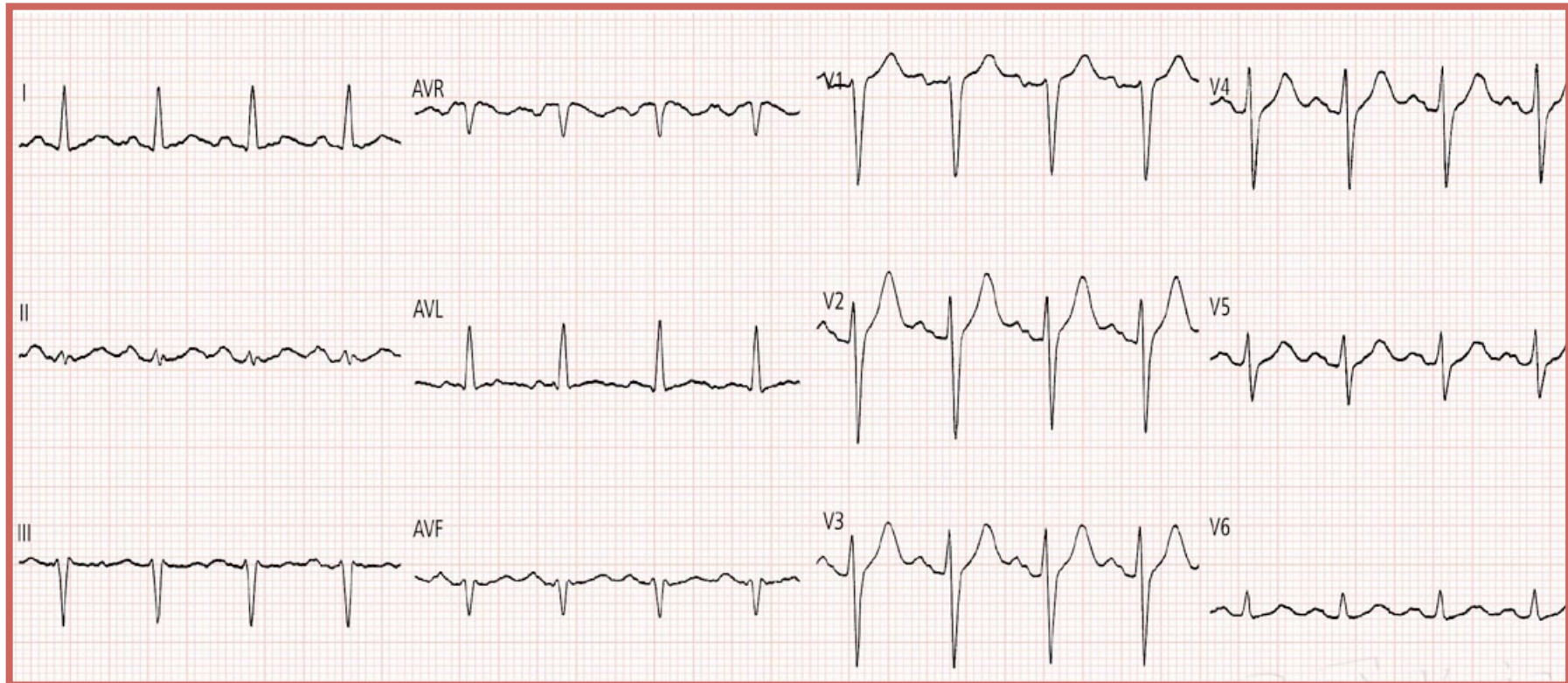
Reactiv-Protein C (RPC) **26.43 mg/L** (NR < 1 mg/L) Ferritin **334** (nr 12-150 ng/mL),

Normal values of: Vitamin B12 and Folic Acid, iron , haptoglobin, transferrin.

Urine: smear: prot ++ (> 2gr/l), some red cells, ph 5,5, Na 23 mg%, K 44 mg/dl

Microbiology Blood Cultures (3) and urine Cultures: Negative

ECG



Thorax X Ray



Initial assessment and evolution

Heart Failure with respiratory infection was considered and she was initially treated with ACE inhibitor, Furosemide, and usual bronchodilators

The patient developed headache and some agitation with deterioration of level of consciousness

A CT head scan was normal.

She developed during the admission progressive dyspepsia and bad taste with severe anorexia and asthenia

Questions and Comments

What other investigations would you have done?

Why?

Further investigations

Blood test: Plasma Proteins: alfa1 8%/alfa2: 23,5% / beta 13.5%/ gama 6%, IgG 140 (NR 800-1500) IgA 21.3 (NR 90-325) IgM 140 (NR 45-150). Very small M component IgM Kappa

Complement: C3 51.5 (NR 86-154) C4 1.67 (NR 20-58) Factor B 18.7 (NR 17-42) PCR 21.4 mg/dl (NR 0-0,5). Tumour marker: CEA 13.8 (NR 0.5-7) Ca 19-9: 61.4 (NR 2.5-37), Ca125: 154 (NR 5-35)

Inmunological Study: ANA, anti DNA, anti-ENA, ANCA, anti Glom.Basal Memb, anti-phospholipid NEGATIVE

Microbiology Serology for AIDS, Mycoplasma, Chlamydias, Coxiella, Q fever, Legionella NEGATIVE, Hepatitis C Positive. Acid Alcohol Stain for Mycobacterium Tuberculosis in sputum and urine NEGATIVES

Lumbar Puncture Clear Liquid without cells: Glu 74 mg/dl (NR 50-75mEq/100ml) / Prot 21.4 mg/dl. (NR 15-55mg/100ml). Negative gram stain and cultures

Echocardiogram: considered almost normal (mild Left Vent. Hypertrophy)

Abdominal echo: normal findings (except possible fatty liver)

Abdominal fat biopsy: normal

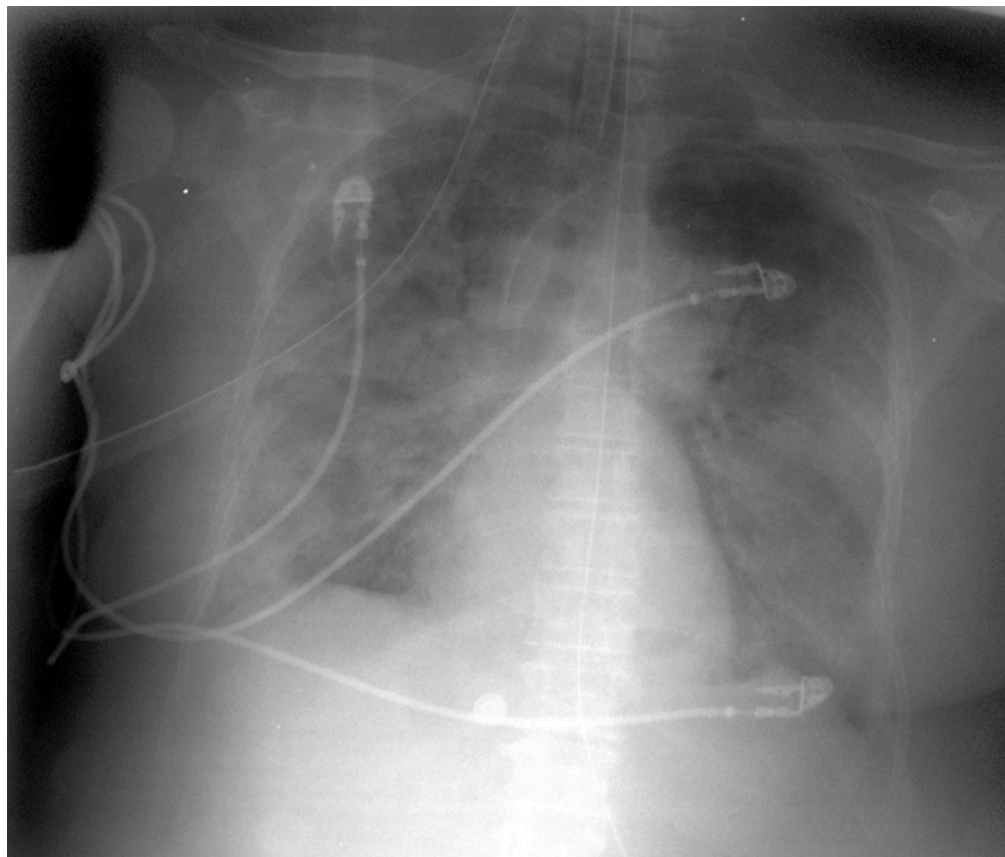
Later evolution (after 4 days)

Respiratory insufficiency developed with general worsening, tachycardia, psychomotor agitation and lung auscultation revealed increased wheezes and crackles.

Admitted to intensive care with great deterioration, requiring oral intubation, mechanical ventilation, antibiotics and other conservative measures.

*A repeat X-Ray showed a wide patchy alveolar infiltrate and pleural effusion. A CT couldn't be done. A bronchoscopy showed a BAL (bronchoalveolar lavage) negative for *P. Carinii* and positive for Herpes simplex.*

Last X ray



New lab: Analysis in intensive care Unit: Cr **1.7**, urea **80**, Na 116, LDH **656**, Ca **7.8** mg/dl (NR 8.8-9.2), Osmolarity; Plasma 263 mOsm/l, urine 332 mOsm/l . Anaemia ,with **Hb 9 g/dl** (NR 12-16) developed with some **schistocytes** (fragmented erythrocytes) in the smear. **A bone marrow didn't reveal new data** (no specific hyperplasia of red cells)

Treatment: with corticosteroids, albumin and gamma globulins was ineffective and she developed progressive renal failure and **died after 10 days in hospital.**

A necrosy was done.

Some investigations results arrived after her death.

Questions and Comments

What will you expect to have at the necropsy of this patient ?