Sérgio Janeiro

CENTRO HOSPITALAR DE SETÚBAL
PORTUGAL

IDENTIFICATION

- L. M. G. B.
- Male;
- 59 y.o.;
- Fisherman; Married;
- Rural area, frequent contact with dogs;
- Past history:
  - Diabetes Mellitus type 2 diagnosed 3 years ago;
  - Left nephrectomy 30 years ago due to firearm assault;
  - Smoker;
  - Alcoholic beverage frequent abuse;
- Medicated with oral antidiabetics, with poor compliance

HISTORY

- Admitted at ED on Oct 12 2011 for **lipothymia**, w/o loss of consciousness or sphincter incontinence;
- **General malaise and diminished muscle force in lower limbs, with peripheral edema,** with 2 weeks evolution;
- Referred a penis ulcer 2 months ago, with pruritus, healed;
- Denied: fever, adenopathies, tick contact, risk behavior, NSAID's intake.

PHYSICAL EXAMINATION

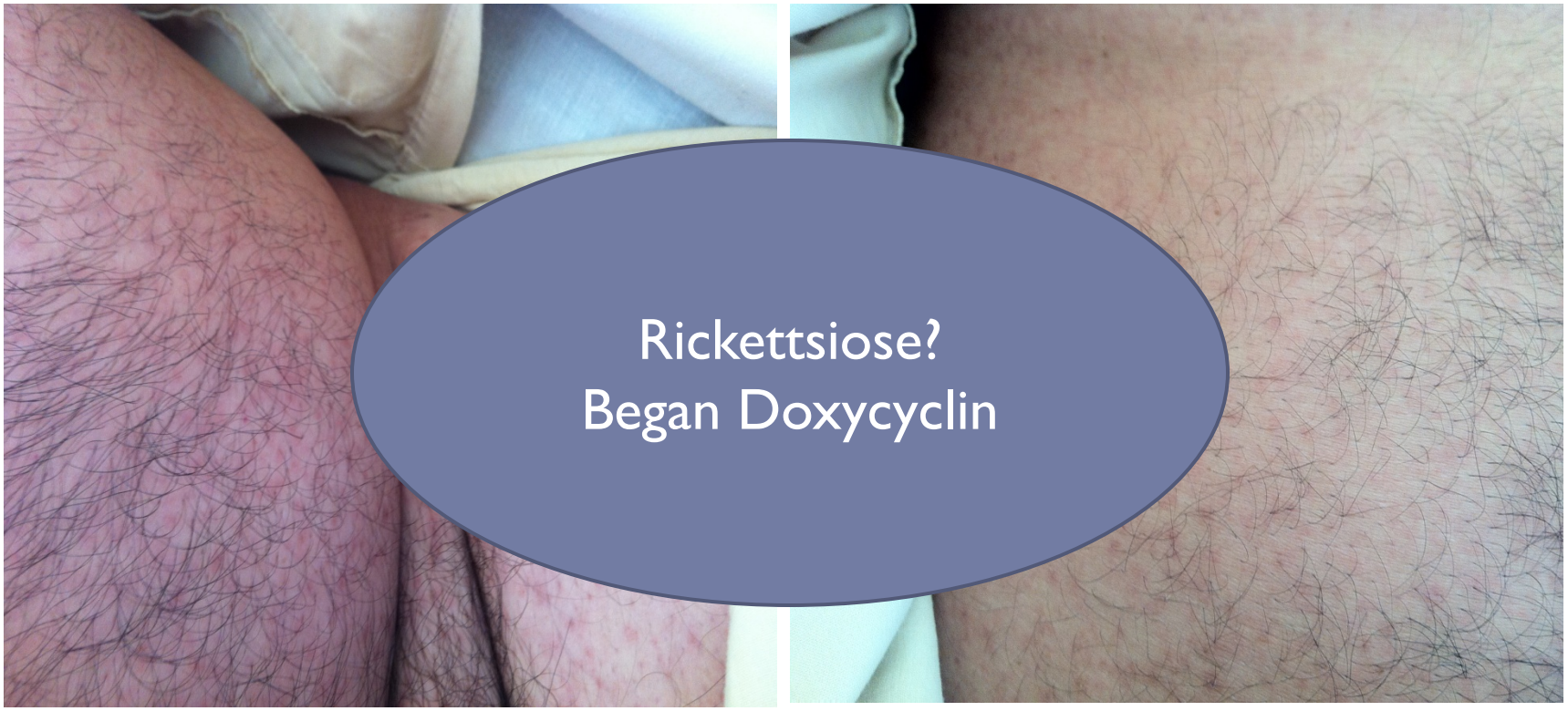
- **Slurred speech, drowsiness,** but awake. No focal deficits;
- Eupneic at rest but with **dyspnea on small efforts**;
- PA: w/o changes; CA: S1+S2, **tachycardic and dysrhythmic**;
- Abdomen: enlarged, **distended**, depressible, not painful;
- **Lower limbs edema**, Godet +++;
- W/o skin changes;
- Apyretic with normal BP.

INITIAL WORKUP

- EKG: AF with RVR (converted to SR with Amiodarone)
- Chest X-ray: no image suggesting condensation, costophrenic angles clear;
- Blood tests:
  - **Hg 15,5g/dL; WBC 14.900/uL com 82% Neut, CRP 0,7mg/dL**;
  - **Cr 2,6mg/dL**; **Ur 174mg/dL**; **Na 122mEq/L**; K 6,1mEq/L (hemolysis of the sample);
  - AST 37U/L; ALT 41U/L; AlcFosp 113U/L; GGT 74U/L;
  - Urine type II: **Leuc+++; Prot++++, many pyocytes**, sugesting UTI;
- **Patient with neuthophylic leucocytosis, AKI vs CKD with acute exacerbation (Normal renal function and no proteinuria in 2008)**

DAY 2

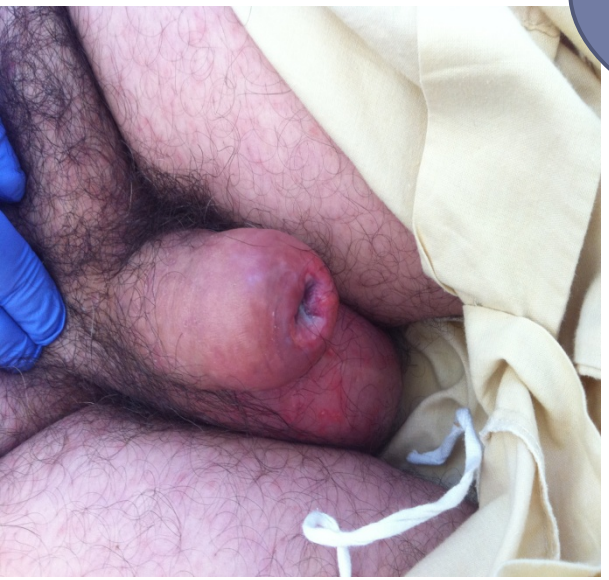
- Generalized skin lesions, maculo-papular, in the trunk, limbs, and palmoplantar regions;

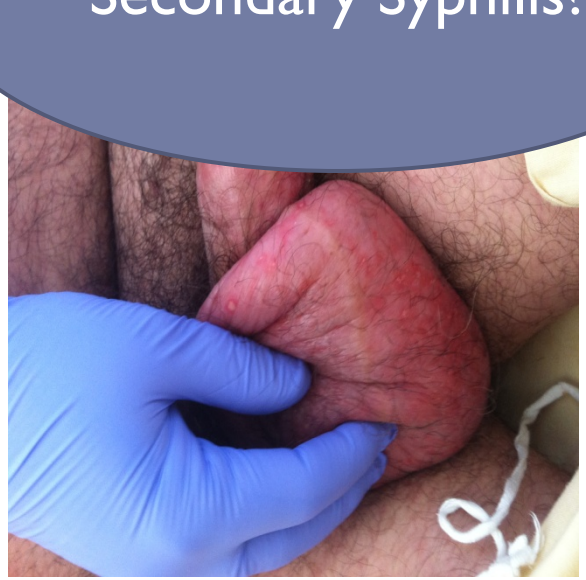


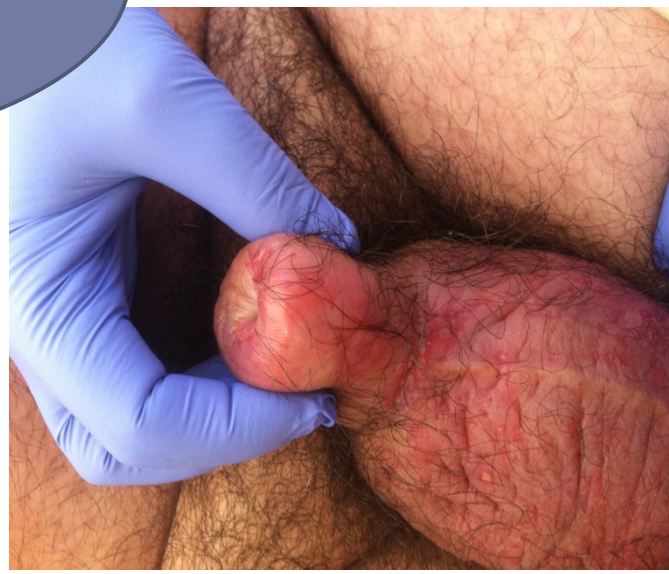
DAY 3

- Lesions in the genital area, with inflammatory balanitis, purulent exudate and paraphimosis;

Secondary Syphilis?







DAY 3

- After Dermathology consult, that considered this a high probability diagnosis, he was administered **Benzatinic Penicilin 2.400.000 U**;

- Suspended Doxycyclin

STD's?

- At this point, the patient no longer denied risk sexual behavior:
  - VDRL Positive, TPHA Positive, Ab IgM Syphilis Positive → **SYPHILIS**
  - Hbs Ag Positive, Hbe Ag Negative, Anti-Hbe Ab Positive, Anti-Hbc Ab Positive → **HEPATITIS B**
    - Viral Load: 4.480.000 UI/mL DNA HBV
  - Serology for HIV 1 and 2 Negative;
  - Anti-HCV Ab Negative.

ADITIONAL WORKUP

- Because of neurologic alterations at admission:
  - Head-CT w/o evidence of acute lesions;
  - Lumbar Punction – Normal, VDRL e TPHA in CSF Negative, **excluding Neurossyphilis or other CNS intections;**
- HbA1C 12%
- Because of AF at admission:
  - TT Eco, w/o structural ou functional changes

ADITIONAL WORKUP

- Progressive worsening:
  - **Cr 4,2mg/dL**; Ur 214mg/dL;
  - **Proteinuria 12g/24h → 27g/24h**
  - Albumine 0,6mgU/L
  - TCol 394mg/dL; HDL 25mg/dL; TGL 448mg/dL
  - Increasing edema

Nephrotic Syndrome

- Renal US: "status post left nephrectomy, **right kydney with compensatory hyperthrophy**. Ascitis."
- Autoimune study negative, normal C3 and C4, normal protein electrophoresis

ADDITIONAL WORKUP

- **KIDNEY BIOPSY**
  - **Gold Standard**
  - **Contraindicated because of nephrectomy**

EVOLUTION

- Began ACEI, anticoagulation, diuretics and statin;

- Progressive clinical improvement:
  - Diuresis > 120cc/h;
  - Decreasing abdominal volume and peripheral edema;
    - Loss of 9,5Kg in a week

HOSPITAL DISCHARGE

- At Oct 26 2011:
  - **Cr 3,1mg/dL**; Ur 106mg/dL; Na 137mEq/L;
  - Albumina 0,7mg/dL; **Proteinuria 27g/24h**.
- Referred to Nephrology outpatient clinic, as well as Internal Medicine, Diabetes and Hepathology consults;
- Medication:
  - Enalapril 10mg/day;
  - ASA 100mg/day;
  - Furosemide 40mg/day;
  - Sinvastatine 40mg/day;
  - Sitagliptine 100mg/day.

FOLLOW UP

- **Nov 3 2011:**
  - **Cr 3,0mg/dL**; Ur 101mg/dL;
  - Albumin 0,6mg/dL; **Proteinuria 20g/24h**;
  - Decreasing edema;
  - Enalapril → 20mg/day;

- **Nov 10 2011:**
  - **Cr 1,9mg/dL**; Ur 77mg/dL;
  - Albumin 0,7mg/dL; **Proteinuria 17g/24h**;
  - Decreasing edema

- **Nov 23 2011:**
  - **Cr 0,76mg/dL**; Ur 37mg/dL;
  - Albumin 0,7mg/dL; **Proteinuria 15g/24h**;
  - No edema
- **Dec 19 2011:**
  - **Cr 0,61mg/dL**; Ur 35mg/dL;
  - Albumin 2,4mg/dL; **Proteinuria 2,5g/24h**;
  - Stop Furosemide

WHAT CAUSED THIS NEPHROTIC SYNDROME?

ETIOLOGIC DISCUSSION

- **Diabetic Nephropthy**
  - Insidious clinical and proteinuria evolution;
  - Diabetes with longer evolution;
  - Associated with other Diabetes complications; ?
- **Hepatitis B: Membranous Nephropathy**
  - Normal or slightly elevated liver enzimes;
  - Usually when Anti-Hbc Ab e Hbe Ag are positive;
  - Associated with low complement;
  - Associated with progressive illnes, usually irreversiblel;

ETIOLOGIC DISCUSSION

- **Hyperfiltrtion because of only kidney: Secondary Focal and Segmentar Glomerulosclerosis**
  - Insidious proteinuria and clinical course;
  - Usually associated with non-nephrotyc proteinuria;
  - When nephrotic proteinuria, usually without edema or hypoalbuminemia;

- **Syphilis: Membranous Nephropathy**
  - Most frequent clinical picture – Nephrotyc Syndrome with heavy proteinuria;
  - Clinical resolution up to 6 months after etiologic treatment
  - Rare etiology

Secondary Syphilis: a rare cause of Nephrotic Syndrome

Thank you for your attention

BIBLIOGRAPHY

- E Kelepouris et al; UpToDate: Overview of heavy proteinuria and nephrotic syndrome; Reviewed Maio 2011;
- L Beck et al; UpToDate: Causes and diagnosis of membranous nephropathy – Reviewed Maio 2011;
- G Bakris et al; UpToDate: Overview of diabetic nephropathy; Reviewed Setembro 2011;
- B Rose et al; UpToDate: Differential diagnosis of glomerular disease; Reviewed Setembro 2011;
- M Mora; Membranous glomerulonephritis in a patient with syphilis; Nefrologia Espanha 2011