CUSHING'S DISEASE IN A PATIENT WITH COMPLICATED VARICELLA

Ana Saavedra[1,2,3], Sandra Belo[1,2,3], Maria Manuel Costa[1,2,3], Cláudia Nogueira[1,2,3], Paula Freitas[1,2,3], Davide Carvalho[1,2,3]

1-Department of Endocrinology Diabetes and Metabolism, Centro Hospitalar de São João, Porto, Portugal; 2-Faculty of Medicine, University of Porto, Portugal; 3-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal.

INTRODUCTION

Immunosuppression is a possible consequence of hypercortisolism, putting these patients in a state of increased risk of infections.

CASE REPORT

Identification: Female, 19 years old.

JULY/2014 EMERGENCY

- Fever + erythematous rash on face/trunk with subsequent widespread to the entire body (severe lesions on external ear)

BLOOD TESTS

✓Hb 17g/dL, WBC 7.70x10^9/L, **Platelets 75000**

✓**Total Proteins 53.5g/L** (64-83), **Albumin 31.6g/L** (38-51)

✓**AST 3478U/L** (10-31), **ALT 3491U/L** (10-31), **GGT 685U/L** (7-32), **AP 8U/L** (30-120) TBrB 1.01mg/dL (<1.2) DBrB 0.55mg/dL (<0.4), **DHL 6193U/L** (135-225), **CK 305U/L** (10-149)

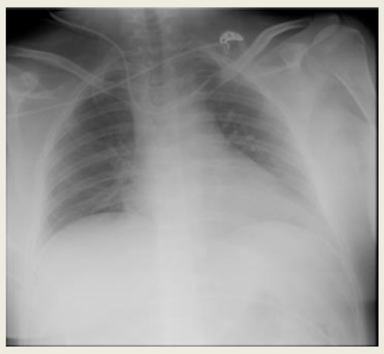
✓**Glucose 196mg/dL,** Urea 14mg/dL (10-50), Creatinine 0.49mg/dL (0.51-0.95)

✓**Na+ 133mEq/L** (135-147), **K+ 3.1mEq/L** (3.5-5.1), CL- 101mEq/L (101-109)

✓**C-Reactive Protein 184.7 mg/L** (<3.0)

✓**aPTT 42.4seg** (36.5), **TP 17.4seg** (14.0)

THORAX X-RAY



ABDOMINAL ULTRASOUND

✓Liver distended with increased dimensions (16cm longitudinal diameter at the mid-clavicular line), diffuse increased echogenicity and heterogeneous echo structure. Without dilatation of the bile duct . No other changes.

INFECTIOUS INTENSIVE CARE UNIT - DIAGNOSIS : SEVERE VARICELLA WITH ACUTE CHOLESTATIC HEPATITIS

COMPLEMENTARY DIAGNOSTIC TESTS

atb HBs neg, atb HBs pos (31,45 UI/L), anti-HBc neg, anti-HCV neg, anti-HAV neg, RNA HEV neg	HIV neg, CMV: IgG pos, IgM neg; EBV; neg; VHS IgG unclear, IgM neg	*C. burnetti*: neg; TPPA negative	**VVZ: IgG neg; Molecular Biology (exsudate) vesicula+, blood +**
Increased IgG (514mg/dL), normal IgA and IgM	ANA, ANCAs, AMA, anti-dsDNA, anti-KLM; anti-smooth muscle negative	Normal ceruloplasmin and copper; **Ferritin 11786.1 ng/mL (N10-120)**	**Echocardiogram:** Small pericardial effusion, no signs of compression. No other changes. BNP 15.4 pg/mL.

•**PERCUTANEOUS LIVER BIOPSY - Histology**: Acute cholestatic hepatitis with confluent necrosis of coagulative type, with morphological aspects corresponding to those described in VZV infection. Marked steatosis, predominantly macrovesicular.

TREATMENT AND CLINICAL EVOLUTION

Acyclovir (7+9days) Amox/Clav (8 days)	• Varicella
Anidulafungin	• Vulvar, oropharyngeal/laryngeal candidiasis
Fluid + KCl + Calcium carbonate + Cholecalciferol	• Hypokalaemia, hypocalcaemia, hypophosphatemia, vit. D deficiency
Regular and NPH Insulin Lisinopril 5mg	• Diabetes Mellitus (HbA1c 6.7%) • High Blood Pressure

GRADUAL IMPROVEMENT OF INFECTIOUS CONDITION AND ASSOCIATED DYSFUNCTIONS

During hospitalization it was observed the presence of:

✓Moon faces (particularly in the last 2 months)
✓Facial plethora
✓Trunk obesity – beginning after menarche
✓Hirsutism
✓Wide purple striae
✓Bruises
✓menstrual irregularities and secondary amenorrhea (menarche at 10 years)

SUSPECTED HYPERCORTISOLISM → ENDOCRINOLOGY

Morning Cortisol 27.6 µg/dL (6.2-19.4); afternoon 30.7 µg/dL (2.3-11.9)
Morning ACTH 92.4 ng/L (<63.3); afternoon 126.7 ng/L

24h urine free cortisol: 300.1 µg/dia (36-137); Volume 1800mL

Late evening salivary Cortisol: 1.150 µg/dL, 0.961 µg/dL, 0.771 µg/dL (<0.32)

Midnight plasma cortisol: 21.5 µg/dL (1.7-8.9)

1mg overnight dexamethasone suppresion test – cortisol 23.0 µg/dL

IGF-1: 296 ng/mL (127-424), | TSH 1.51 uUI/mL (0.35-5.0) | PRL 24.0 ng/mL (4.8-23.3) | DHEA-S 115.0 µg/dL (148-407) | D4Androstenedione 5.29 ng/mL (0.30-3.30)

2mg/DAY LOW-DOSE DEXAMETHASONE SUPRESSION TEST

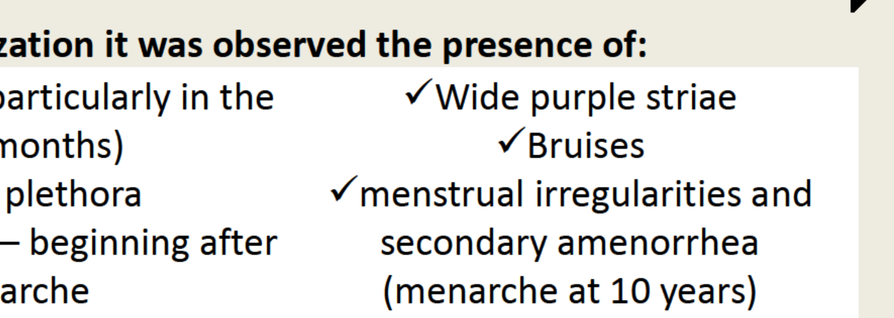
	8h		16h		Urine 24h	
	Cortisol (µg/dL)	ACTH (pg/mL)	Cortisol (µg/dL)	ACTH (pg/mL)	Free cortisol (µg/dia)	V urine (mL)
Basal	25.4	14.7	29.0	112.0	413.7	2100
1st day	24.3	53.4	26.8	32.6	268.8	2100
2nd day	17.9	66.6	24.8	59.3	241.5	2100
End	15.1	45.8	-	-	-	-

8mg/DAY HIGH-DOSE DEXAMETHASONE SUPRESSION TEST

	8h		16h		Urine 24h	
	Cortisol (µg/dL)	ACTH (pg/mL)	Cortisol (µg/dL)	ACTH (pg/mL)	Free cortisol (µg/dia)	V urine (mL)
1st day	26.0	81.0	25.4	58.6	239.7	1700
2nd day	21.8	94.0	20.3	52.3	154.0	1400
End	3.8	28.5	-	-	-	-

PITUITARY MRI

"Lesion in the right half of the pituitary gland compatible with a microadenoma"



BONE DENSITOMETRY

Z-score - lumbar spine: -2.2 | femur: -1.2
Lumbar spine: 23% lower than expected
Femur: 14% lower than expected

CUSHING DISEASE → Endoscopic endonasal transsphenoidal surgery - after surgery morning cortisol 52.4 µg/dL (N 6.2-19.4); ACTH 113.7 (N <63.3).
→ She started treatment with ketoconazole

DISCUSSION

This clinical case emphasizes the importance of considering hypercortisolism as a condition capable of inducing immunosuppression, which may result in the development of serious infections and, therefore, these severe clinical situations should raise this diagnostic possibility.

17 ECE 1224--EP

Clinical Cases Pituitary/Adrenal

Ana Saavedra

DOI: 10.3252/pso.eu.17ece.2015

Poster presented at: ECE2015 16-20 May 2015 DUBLIN, IRELAND 17th EUROPEAN CONGRESS OF ENDOCRINOLOGY

PosterSessionOnline.com