

Altogether
to Beat
Cushing's
Syndrome



VIAGGIO ALLA
(RI)SCOPERTA
DELLA SINDROME
DI CUSHING
seconda edizione
Capri \ 15-18 maggio 2013
Certosa di San Giacomo
Hotel della Piccola Marina

19.00-19.30 **SESSIONE SPECIALE: PROPOSTA DI STUDI**
moderatori Annamaria Colao, Rosario Pivonello

19.00-19.15 **PROPOSTA DI STUDIO "SIE-SIAMS"**
**LA FERTILITÀ E LA SESSUALITÀ
NELLA SINDROME DI CUSHING**
Rosario Pivonello, Andrea Isidori

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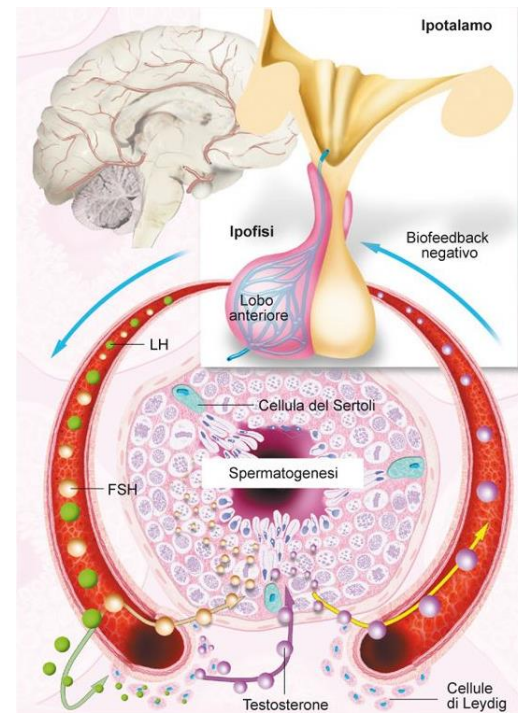
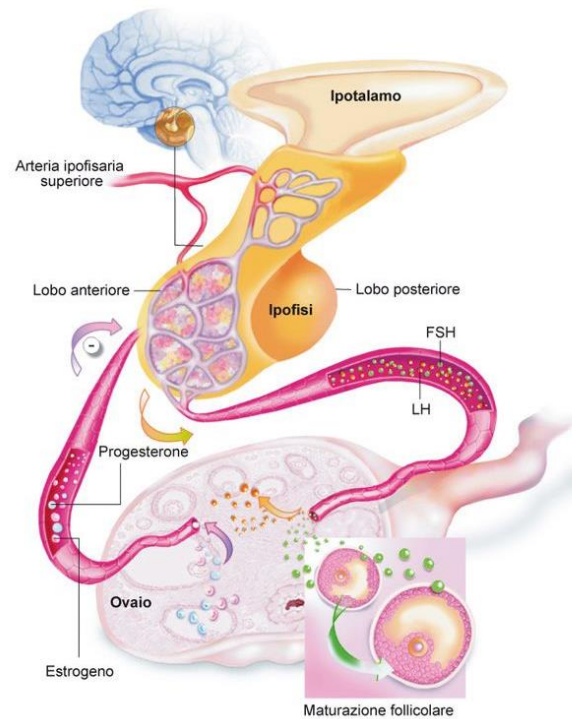


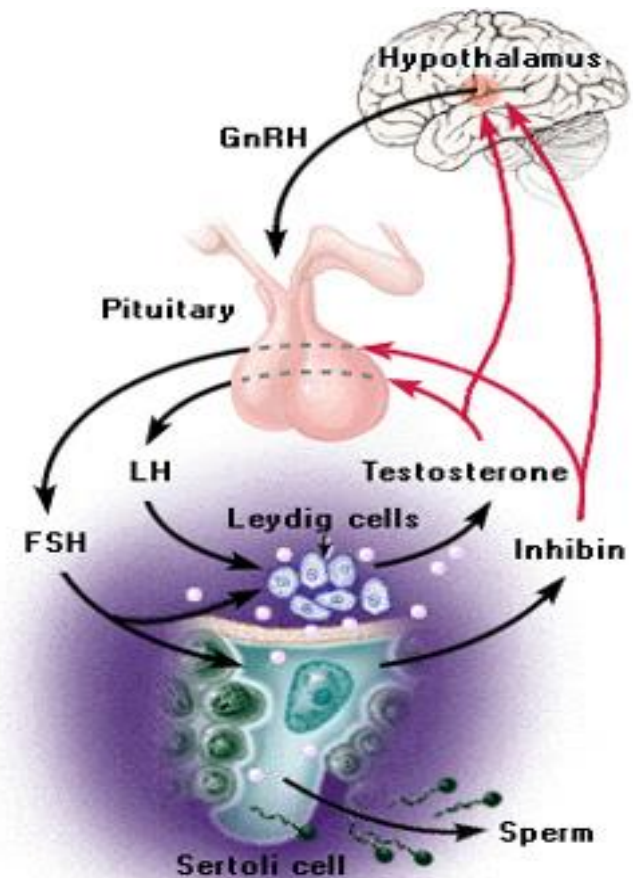
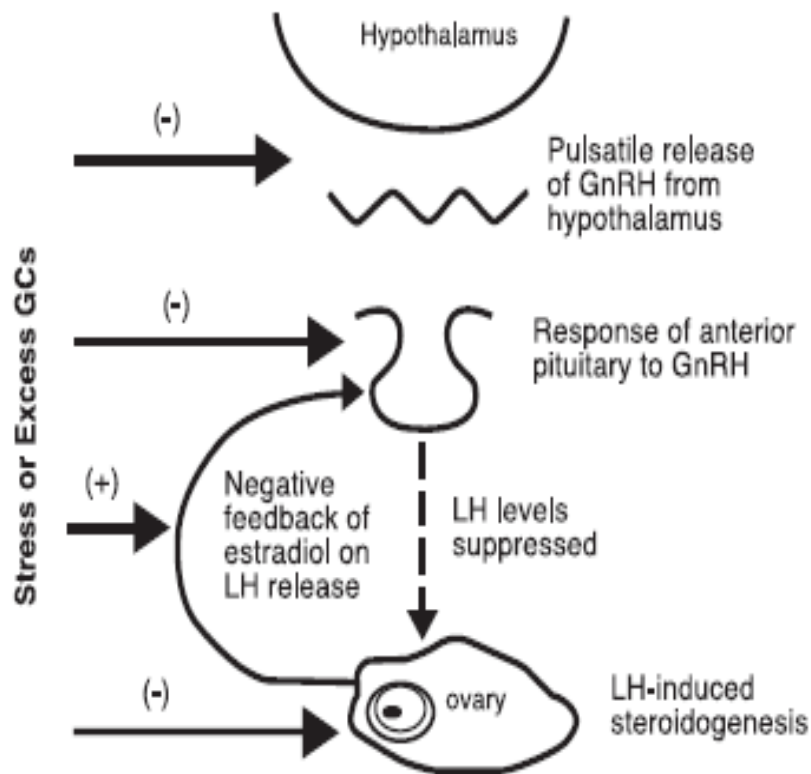
Proposta Studio SIE-SIAMS

Proponenti:

Rosario Pivonello, Andrea Isidori,
Annamaria Colao, Emanuele Jannini

Glucocorticoidi, sindrome di Cushing e funzione riproduttivo-sessuale





Scopo dello studio

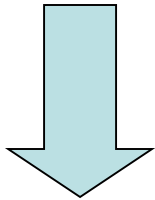
- Valutazione della funzione riproduttiva e sessuale nei pazienti con Sindrome di Cushing in fase attiva e le eventuali modifiche in fase di remissione o di controllo farmacologico
- Correlazioni tra i markers biochimici di malattia e i parametri metabolici e ormonali e gli outcome riproduttivi e inerenti la sfera sessuale

Selezione dei pazienti

Tutti i pazienti, di entrambi i sessi e con età compresa tra 18 e 60 anni, con Sindrome di Cushing di qualsivoglia eziologia (ipofisaria, surrenalica o ectopica) ed in qualunque stato di malattia (attività, remissione, controllo farmacologico), sia di nuova diagnosi sia già noti.

Disegno dello studio

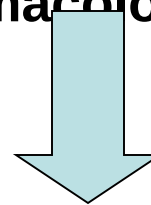
STUDIO PROSPETTICO



- Analisi di prevalenza
- Confronto categoriale
- Analisi intracategoriale dei parametri analizzati al variare dello stato di malattia

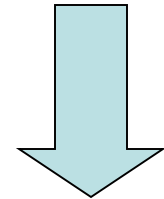
Timeline

Pazienti in
remissione
o controllo
farmacologico



Ripetizione
valutazioni del
baseline dopo 12
mesi

Pazienti attivi



Ripetizione valutazioni del
baseline dopo 6 e 12 mesi
dal momento della
remissione

Materiali e metodi

- Anamnesi generale e farmacologica
- Parametri antropometrici: peso, BMI, circonferenza vita, pressione arteriosa sistolica e diastolica
- Esame obiettivo genitale (volumi testicolari, dimensione peniena, esame digitale della prostata)
- glicemia, insulinemia, colesterolo totale, HDL, LDL, trigliceridi
- ACTH, cortisolo, GH, IGF-1, FSH, LH, Testosterone, SHBG, 17β Estradiolo, PRL in due tempi, 17 OH Progesterone, $\Delta 4$ -androstenedione, DHEA-S, fT3, fT4 e TSH
- Test hCG per testosterone, 17 OH progesterone, androstenedione e 17 beta -estradiolo
- AMH e inibina B



Materiali e metodi



- Esame del liquido seminale
- Ecocolordoppler scrotale e ad ecografia prostatica trans-rettale
- International Index of Erectile Function – 15 (IIEF-15)
- Structured Interview on Erectile Dysfunction (SIEDY)
- Ecografia peniena basale e dinamica dopo stimolo



- Ecografia pelvica e monitoraggio ovarico
- Female Sexual Function Index (FSFI)



IIEF

(>800 citazioni in letteratura)



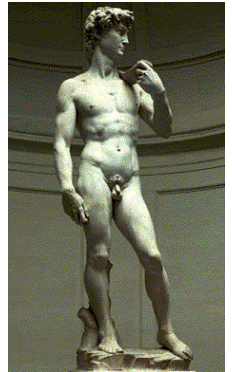
International Index of
Erectile Function (IIEF³)

15 items, 5 domains:

1. Sexual desire
2. Erectile function
3. Orgasmic function
4. Intercourse satisfaction
5. Overall satisfaction



SIEDY: l' intervista strutturata (>34 citazioni in medline)



Structured Interview on
erectile dysfunction
(SIEDY²)

17 items, 3 domains:

1. Scale 1 (organic component of ED)
2. Scale 2 (relationship component of ED)
3. Scale 3 (intrapsychic component of ED)



Risultati preliminari



SEXUAL FUNCTION IN MALE PATIENTS WITH CUSHING'S DISEASE AT DIAGNOSIS AND ONE YEAR AFTER REMISSION



The aim of this study was to investigate the prevalence and the characteristics of sexual function in male patients with CD and their reversibility after disease remission.

Methods

Anamnesis; Clinical evaluation; Hormonal evaluation & tests; Ultrasound scan of testis;

Administration of International Index of Erectile Function Questionnaire with 15 items (IIEF-15) questionnaire

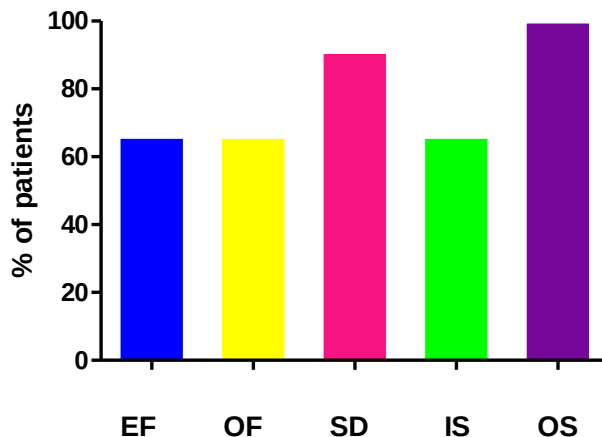
Patients



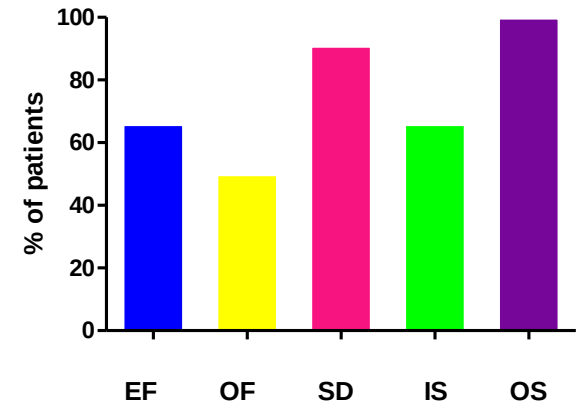
Erectile function (EF), Orgasmic function (OF), Sexual Desire (SD), Intercourse Satisfaction (IS) and Overall Satisfaction (OS).

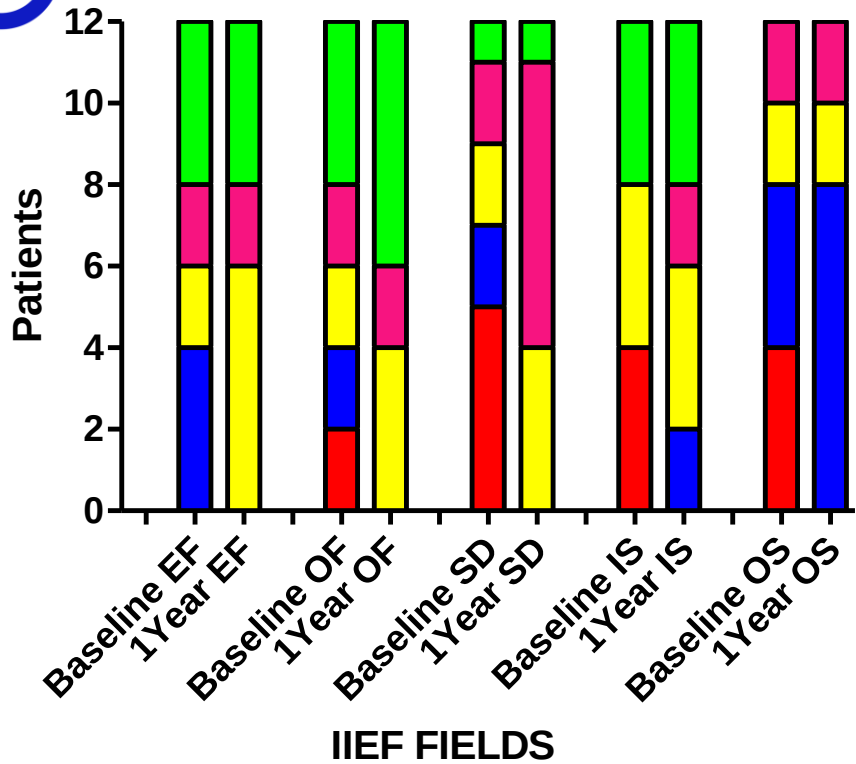
Results

PREVALENCE OF IMPAIRMENT AT DIAGNOSIS



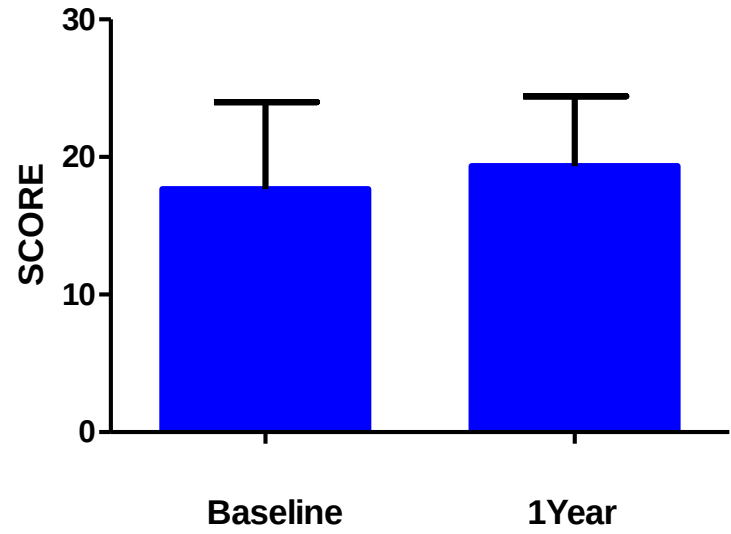
PREVALENCE OF IMPAIRMENT AFTER ONE YEAR



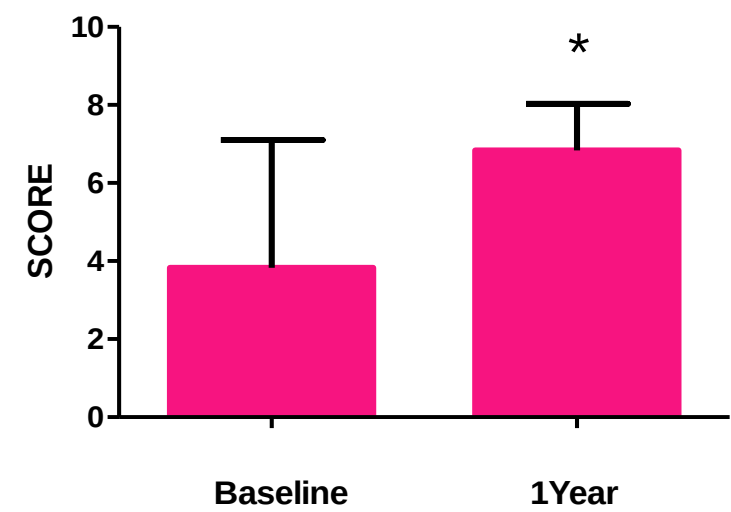


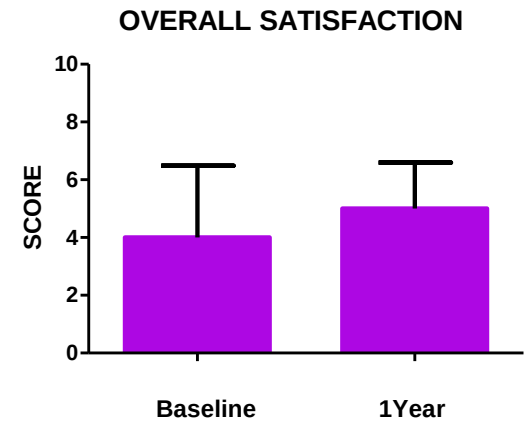
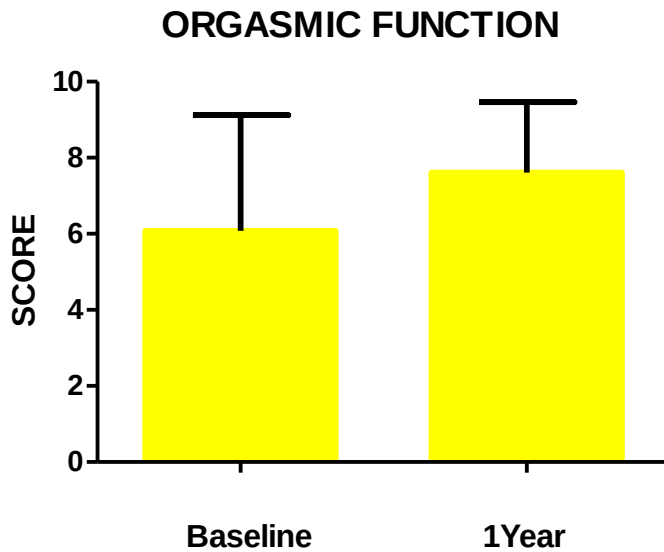
- Severe Dysfunction
- Moderate Dysfunction
- Mild to Moderate Dysfunction
- Mild Dysfunction
- No Dysfunction

ERECTILE FUNCTION



SEXUAL DESIRE





CD is associated with a higher prevalence of sexual dysfunction. Our preliminary data suggest that sexual impairment doesn't improve significantly even after a perfect control of the hypercortisolism; this evidence occurs probably due to the irreversibility of such systemic alterations caused by the previous chronic exposure to cortisol excess (i.e. vascular damage, inappropriate activity of hypothalamic-pituitary-gonadal axis and impairment of neuropsychologic function).

FSFI (>350 citazioni)

Brief Sexual Function Index for Women (BSFI-W⁵⁹)

22 items, 3 domains: (li intercourse, satisfaction domains:
1. Desire (sexual thought
2. Arousal (lubrication)
3. Frequency (of sexual activity)
4. Receptivity (initiation)
5. Pleasure (orgasm)
6. Satisfaction (relationship)
7. Sexual problems



Female Sexual Function Index (FSFI⁶³)

19 items, 6 domains:
1. Desire
2. Subjective arousal
3. Lubrication
4. Orgasm
5. Satisfaction
6. Pain

Golombok-Rust Inventory of Sexual Satisfaction (GRISS¹³)

28 items, 7 domains:
1. Anorgasmia
2. Nonsensuality
3. Satisfaction
4. Sexual avoidance
5. Sexual communication
6. Sexual frequency
7. Vaginismus

J Sex Med 2010;7:1139-1146.



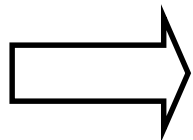
How would you rate your level (degree) of sexual desire or interest?		DESIDERIO SESSUALE	at all
How would you rate your level of sexual arousal ("turn on") during sexual activity or intercourse?	No sexual	AROUSAL	t all
How often did you become lubricated ("wet") during sexual activity or intercourse?	No sexual	LUBRIFICAZIONE	ever

When you had sexual stimulation or intercourse, how often did you reach orgasm?	No sexual	ORGASMO	ever
How satisfied have you been with your overall sexual life?		SODDISFAZIONE GENERALE	
How often did you experience discomfort or pain during vaginal penetration?	Did not a interco	DOLORE COITALE	ever

Cut-off

≤ 19 FSD

- > 19 FSD
- Sens. 93.3 e spec. 94.5



Cut-off Score	True positive rate (Sensitivity)	True negative rate (specificity)	Predictive probability of FSD
17	75.2	94.5	96.3
18	84.8	94.5	96.7
19	93.3	94.5	97.0
20	95.2	83.6	91.7
21	100.0	65.5	84.7



Risultati preliminari

Cushing Disease and Female sexuality



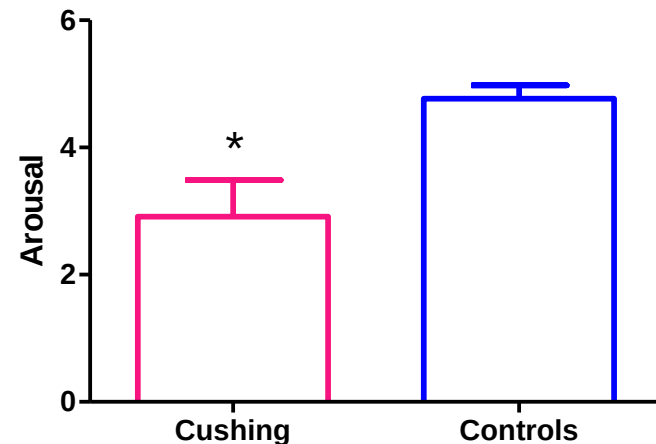
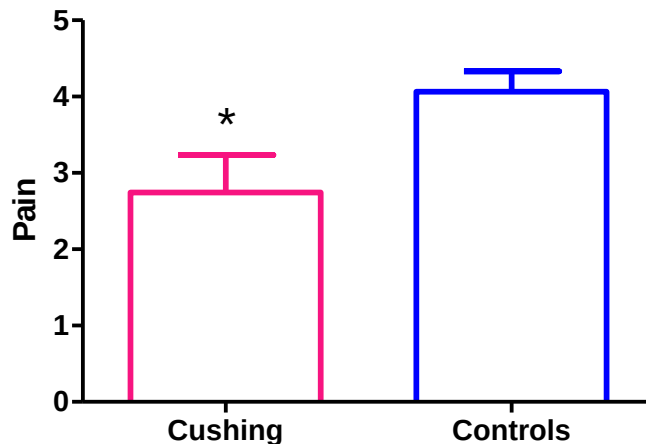
Aim: to see if the hypercortisolemic state influences sexuality in female during the active state of the disease

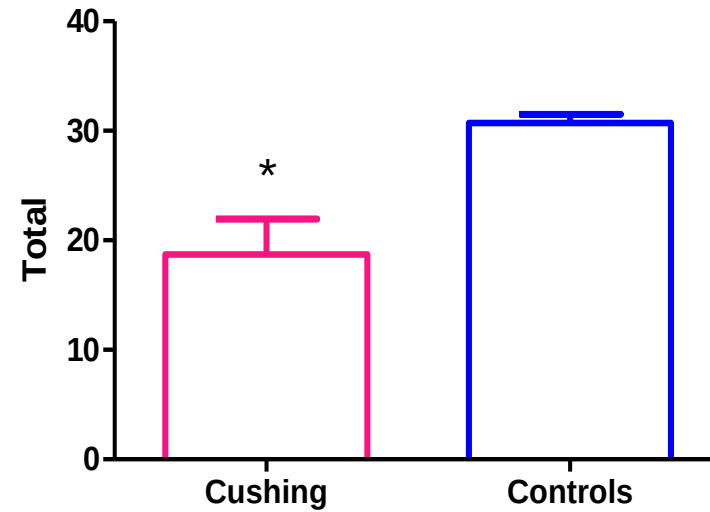
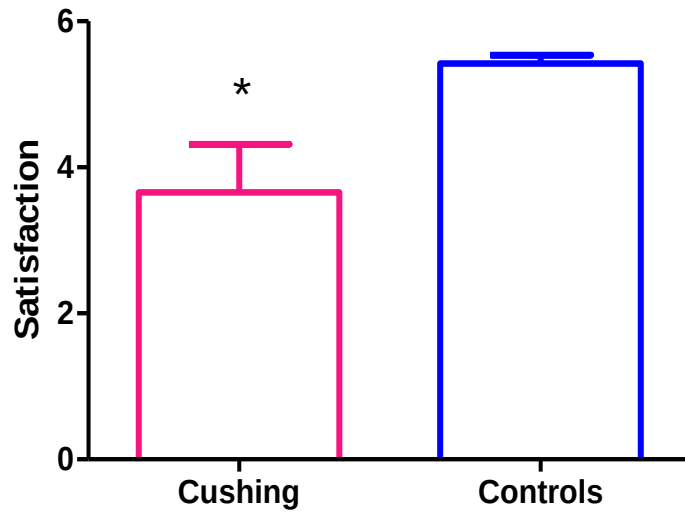
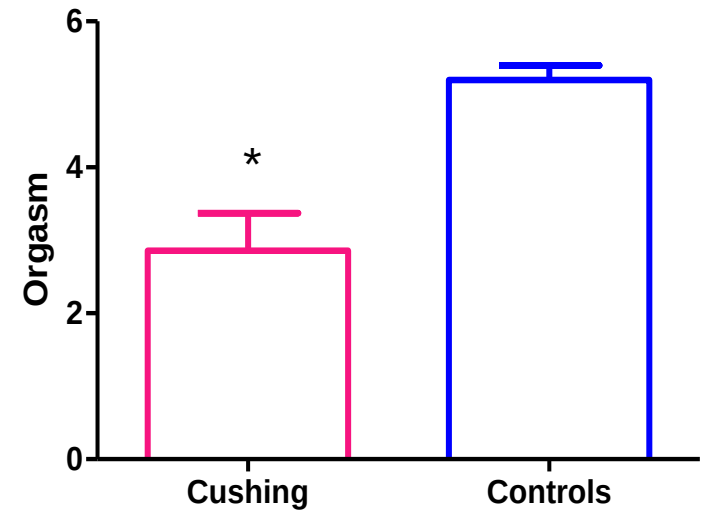
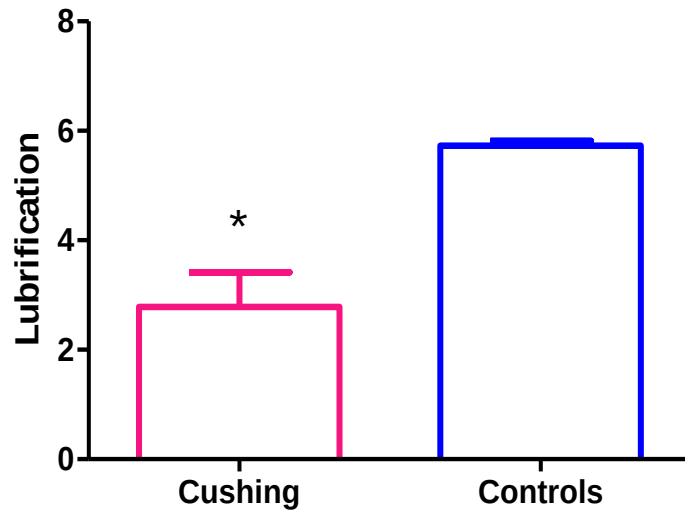
Patients: 14 pts with active Cushing disease and 18 aged-and BMI-matched controls

Methods: hormonal settings and FSFI questionnaire were performed



Results







Thanks