

Who needs pre-operative medical blockade for Cushing's disease?

Trapp EK, Prague JK, Whitelaw BC

EP-832

- Definitive treatment for Cushing's disease is surgery
- Severe disease burden may require medical blockade
- The threshold for blockade is based on clinical judgment

Methods:

We retrospectively identified 30 consecutive patients diagnosed with Cushing's disease who proceeded to transphenoidal surgery. Using the Sonino Cushing's severity index (CSI) we calculated each patient's clinical severity disease score by reviewing their medical notes.

Table 1. CSI (score = 0-16)

Fat distribution	0	1	2
Skin lesions	0	1	2
Muscle weakness	0	1	2
Mood disorder	0	1	2
Hypertension	0	1	2
Diabetes	0	1	2
Hypokalemia	0	1	2
Sex-related disturbances	0	1	2

Results:

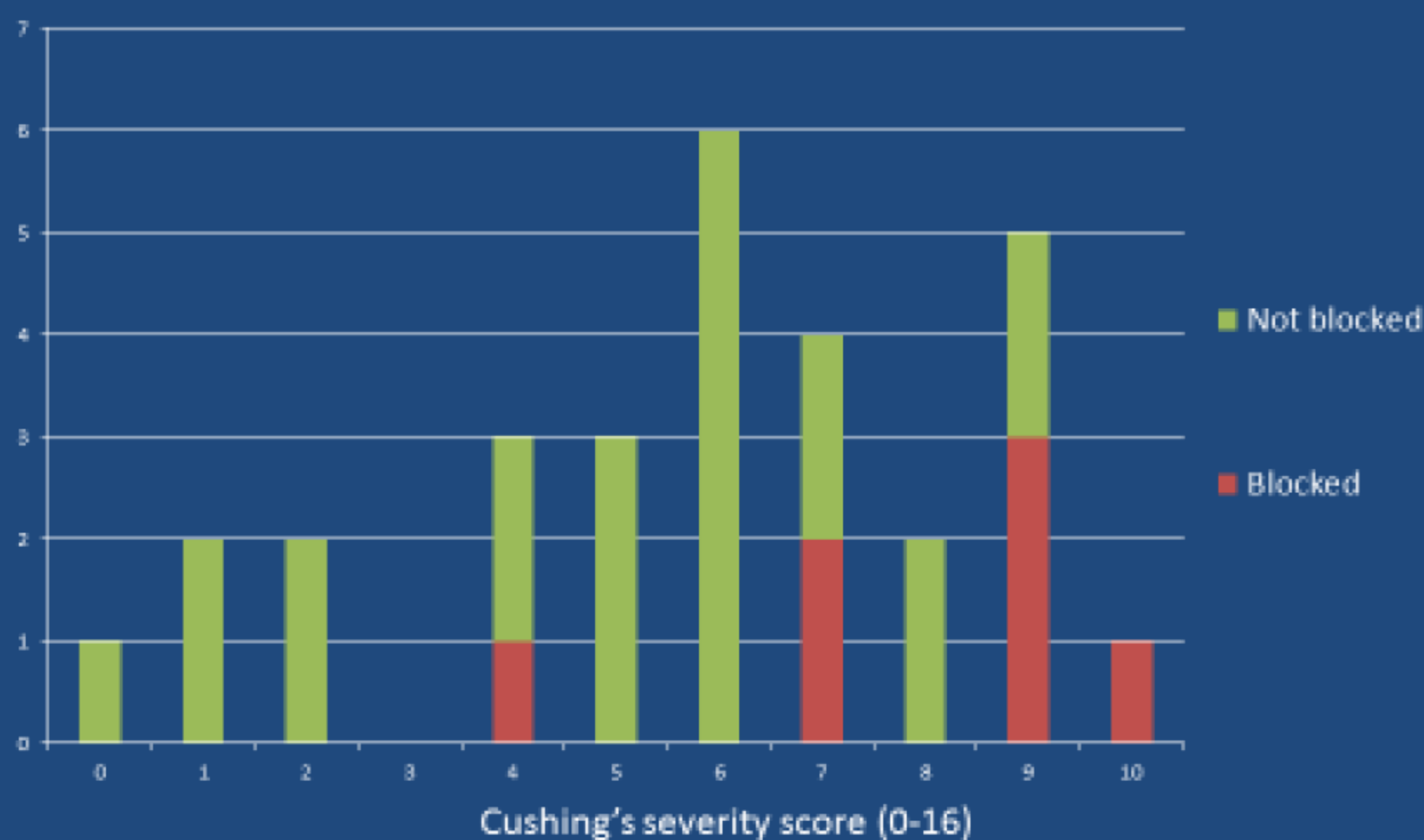
All 30 patients had sufficient information documented in their medical records to enable retrospective calculation of their CSI score (mean 5.8, range 0-10). 23% (7/30) received pre-operative medical blockade. The mean duration of blockade was 14 weeks (range 2-30). The mean CSI of patients deemed to need pre-operative blockade was 7.9 compared to 5.2 in the patients who were deemed to not need prior optimisation (p=0.017). Only one of 18 patients (6%) with a CSI <7 was prescribed blockade. Six of the 12 patients (50%) with a CSI in the range ≥7 received medical blockade.

Fat distribution	0 = normal 1 = mild truncal obesity with/without facies 2 = marked truncal obesity with/without facies
Skin lesions	0 = absent 1 = mild manifestations of one or more of the following: striae and/or bruises and/or infections 2 = severe manifestations of one or more of the following: striae and/or bruises and/or infections
Muscle weakness	0 = absent 1 = mild (without functional impairment) 2 = severe (with functional impairment)
Mood disorder	0 = absent 1 = mild (minor mood changes not requiring psychiatric help) 2 = severe (major mood disorder that substantially affects the individual levels of functioning and requires psychiatric help)
Hypertension¹	0 = absent (diastolic blood pressure ≤ 90 mm Hg) 1 = mild (diastolic blood pressure >90 and ≤ 105 mm Hg) 2 = severe (diastolic blood pressure >105 mm Hg)
Diabetes²	0 = absent (decreased glucose tolerance may occur) 1 = mild (serum glucose <11 mmol/l) 2 = severe (serum glucose ≥ 11 mmol/l)
Hypokalemia³	0 = absent (serum K >3.4 mmol/l) 1 = mild (serum K 3.4-3.2 mmol/l) 2 = severe (serum K <3.2 mmol/l)
Sex-related disturbances	
Female	0 = absent 1 = mild manifestations of one or more of the following: hirsutism and/or hair loss; menstrual abnormalities 2 = severe manifestations of one or more of the following: hirsutism and/or hair loss; amenorrhea
Male	0 = absent 1 = decreased libido, occasional impotence 2 = impotence

¹ Blood pressure determination refers to median measurements without antihypertensive therapy.
² Glucose levels refer to median values without specific treatment.
³ Potassium levels refer to median values without specific treatment.

Case	Age	Duration	CSI Score	Notes
1	52F	2 weeks	9	to reduce symptoms
2	44F	4 weeks	9	clinically severe
3	57M	6 weeks	7	clinically severe + cardiac failure
4	59F	4 months	4	Initiated other institution
5	41F	4 months	9	clinically severe
6	71M	5 months	10	clinically severe multiple co-morbidity
7	52F	7 months	7	moderate + surgical delay

Severity and blockade



Conclusion:

We report our recent practice which shows that patients with a CSI of <7 are very unlikely to require pre-operative medical blockade.

However CSI of 7-9 will often be an indication for blockade and CSI of ≥10 is highly likely to be an indication.

This scoring system with these associated cut off values could easily be utilised in clinical practice to guide medical decision making and facilitate comparison between expert centres.