



## Letter to the Editor

### Assessing sexual dysfunction in men with epilepsy: A need for specific tools!



Dear Editor

I read with great interest the work by Dawson et al. [1] dealing with the assessment of erectile dysfunction (ED) in men with epilepsy. The authors concluded that the International Index of Erectile Function (IIEF) might be a useful ED screening tool in these patient population, although specific targeted questions may provide better understanding concerning sexual problems and facilitate an open dialog with the clinicians.

Approximately 18 million men suffer from some type of ED, which is primarily due to age, comorbid health conditions, or medications [2]. Individuals with epilepsy have an increased risk of ED of up to 57% compared to 3–9% in the general population. However, there is not a consensus regarding ED prevalence, which varies within particular patients with epilepsy with a frequency as low as 3% in outpatients to as high as 58% in patients evaluated for epilepsy surgery [3,4].

The work by Dawson is noteworthy [1], as disclosing and assessing sexual dysfunction (SD) in neurological patients, including those with epilepsy, is still a matter of debate. Indeed, no specific tools exist to properly investigate sexual concerns in men with epilepsy and clinicians are not trained enough to deal with sexuality and the related problems.

Although SD are common in individuals with epilepsy, the etiology remains still unknown, but it is likely to be multifactorial, involving neurological, iatrogenic, endocrine psychiatric and psychosocial factors, including feelings of stigma, psychological distress, unemployment, lowered self-esteem, and interpersonal difficulties, i.e., social isolation and low social competence [4].

Diagnostic assessment of SD in these patients should consist of three phases: anamnesis, physical examination, and instrumental investigation [5].

Anamnesis or medical history is the key element of the clinical approach. It leads to the identification of risk factors (personal habits including smoking, alcohol intake, and use of psychoactive drugs, endocrinometabolic diseases, psychological, and/or social stressors) in order to look into either the organic or psychological pathogenesis of the sexual dysfunction, and acts as a guide for further diagnostic evaluation [6].

A psychological screening for depression and anxiety disorders should be performed, using validated scales such as Hamilton Rating Scale for Depression and Anxiety, to rule out the possible psychological/psychiatric causes in determining SD.

Medication history plays an important role, given that there are many drugs commonly used in patients with epilepsy, i.e., antidepressants, sedatives,  $\beta$ -blockers, diuretics, which may lead to sexual side effects, besides antiepileptic drugs (AEDs) on their own.

Indeed, either old AEDs (by decreasing bioactive testosterone, accelerating sexual hormone metabolism, and stimulating hormone-binding globulin production) or new AEDs (mainly by unbalancing the dopamine/serotonin ratio, as well as other related neurotransmitters)

may lead to loss of libido, with a consequent impairment of the related sexual response [7,8].

Although SD is common in both male and female patients with epilepsy, its quantification is limited by the paucity of validated, user-friendly scales. Sexual functioning may be easily measured using the Arizona Sexual Experience Scale (ASEX), a brief five-item scale designed to assess the core elements of sexual function (i.e., drive, arousal, penile erection/vaginal lubrication, ability to reach orgasm, and satisfaction with orgasm), or by the IIEF, a standardized and validated self-evaluation scale that provides pre–post treatment clinic evaluations of erectile function, orgasmic function, sexual desire, satisfaction in sexual intercourse, and general satisfaction (which has been validated in epilepsy by Dawson et al. in their useful work) [1].

General, neurological, and urogenital examination is necessary to point out medical comorbidities. Indeed, ED can be the first clinical sign of an unknown and untreated cardiovascular disease, so an accurate evaluation of the heart and of the main arteries should be done in selected individuals. A full endocrine and metabolic workup, including serum levels of testosterone, Follicle-stimulating hormone (FSH), luteinizing hormone (LH), prolactin, and thyroidal function, may be performed, especially in patients under older AEDs.

The nocturnal tumescence measurement can help distinguishing between organic and psychogenic ED so that, in the cases of a suspected organic disease, further and more specific investigation (such as pudendal somatosensory evoked potentials (SEPs), Doppler-ultrasound, ...) should be performed.

In conclusion, there is a growing need for a better management of epilepsy-related SD, with regard to ED, providing the patients with specific and validated sexual assessment tools. Diagnosing and treating SD enters the framework of a holistic approach, which is mandatory in chronic neurological disorders, such as epilepsy.

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