



PRIMUM NON NOCERE: DIABETIC DYSAUTONOMIA WITH DETRUSOR INSTABILITY-AN UNUSUAL CASE.

Medicine

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ABSTRACT

Primum non nocere means –“first do no harm”. Unfortunately, sometimes in the zeal to treat patients, We Doctors over treat, causing terrible side effects on our helpless patients. We report a case where the patient had a very bad outcome because of excessive and inappropriate treatment, resulting from inaccurate diagnosis/awareness.

KEYWORDS

“Primum non nocere”, Diabetic dysautonomia, Detrusor instability

INTRODUCTION:

A 55 years post-menopausal Female, home maker, presented to us with a history of (1) Inability to control urine (2) Frequent falls with injuries-requiring hospitalizations and stitches. (3) Constant dizziness, Fatigue, unsteadiness of gait and headaches.

She was a known case of Diabetes (poorly controlled) and Hypertension (labile). She was actually taking 22 tablets a day for this (Oral Hypoglycemic Agent, Antihypertensive, NSAID'S, Herbal Medicines, PPI, Multivitamins etc.). And yet neither sugar/BP nor symptoms were under control.

Apparently her BP was always high and the attending Doctors kept hiking up the doses/tablets. She was miserable with urinary frequency (12-14 times during night hours), urgency, nocturia and dependency on diapers. She reported constant giddiness and weakness especially on assuming upright posture from reclining one. She tended to fall very often. She had frequent injuries accrued after falls for which she had been admitted at least 3-4 times in various nursing homes/hospitals and had needed scans and stitches. As a result, she was unable to walk and stand for long duration and complained of severe generalized weakness. She reported poor appetite, easy fatigability, with disturbed/non-refreshing sleep. She had consulted many doctors from many faculties- including 2 M.D physicians, 2-neurologists and 2 cardiologists.

O/E here, she was found to have severe postural hypotension. Supine BP-154/84, Sitting-124/78 and standing-90/60. Hence her all B.P/ diabetes medicines were kept on hold. Romberg's sign was strongly positive and she was unable to do the tandem walk. Her sugar was only 64 and had to be given 25% Dextrose IV. There were no cerebellar signs. Detailed urological/Nephrological evaluations including USG and uroflowmetry were normal.

So, her final diagnosis was (1) Dysautonomia (2) Hypoglycemia (with unawareness) (3) Postural hypotension because of dysautonomia worsened by overzealous anti HT medications (4) Overactive bladder/detrusor instability.

Treatment Plan

All her medications were stopped with prompt relief from symptoms. Vestibular exercises were initiated in physiotherapy department. Kegel's exercises were started. Lower limbs were encased in vesco stockinets and she was taught to change posture very gradually. Instructions regarding micturition syncope were given. Her BP/Sugar medications were reintroduced at lowest doses and upwardly titrated so as to achieve optimum control without overshooting. Oral B3 agonist Mirabegron 50 mgs was initiated. She was discharged on only 3 tablets and reported feeling absolutely fine.

On Follow up a fortnight later, she was totally asymptomatic with normal pulse/ BP and sugar readings. Her B.P was as follows; 140/80-supine, 138/80-sitting and 130/80-standing. There had been no falls/giddiness/ weakness. Her nocturnal urinary frequency had reduced to 4 times instead of 14.

DISCUSSION:

Dysautonomia refers to a group of medical conditions caused by

disturbances in autonomic nervous system-That part of the nervous system which governs the involuntary body functions, like heart Rate, Breathing, Digestion, Blood Pressure, Temperature, Sexual function, Pupillary Dilatation/Constriction etc. Dysautonomia leads to multisystem impairment in both type 1 and type 2 diabetes². Cardiac system is most notably involved. It's very important to make an early diagnosis, as subclinical features may occur as early as within a year of diagnosis³ in T2DM and within 2 years in T1D⁴. Clinical evidence/signs may be seen by an observant doctor after a few years⁵. Metabolic, genetic and hormonal factors have been implicated in pathogenesis. The final pathway seems to be chronic hyperglycemia resulting in oxidative stress and inflammation through a host of cytokines⁶. Besides DM, following conditions may be associated with dysautonomia. Parkinson's disease, multiple system atrophy, Dementia, HIV, Shy-dragger's syndrome etc. Symptoms vary in intensity from patient to patient. They may be either intermittent or persistent and may be precipitated with physical or emotional distress. Orthostatic intolerance is common-i.e. being unable to stand up for a long without feeling faint or dizziness especially after getting up from reclining/sitting position. Other notable symptoms are: Dyspnea, light headedness, fluctuations in body temperature, chronic fatigue, nausea, vomiting, and constipation/diarrhea.

CONCLUSION:

This is a case of diabetic dysautonomia with overcorrected over corrected hypertension with disastrous outcome for the patient. Supine BP seems high and hence the attending Doctor increases BP medications. This causes bad hypotension when patient assumes vertical posture.

The focus should be on correct diagnosis and proper titration of medications so as to avoid obnoxious rises/falls in parameters like Pulse/BP/sugar etc. Patient education is of paramount importance.

Careful vigil on urinary microalbuminuria might aid in early diagnosis.⁷

Aggressive management of Obesity goes a long way in preventing/ muting autonomic instabilities.⁸

We doctors should also stand corrected on two fronts. (1) To be aware of the possibility of dysautonomia especially with obesity and Diabetes on the rise (2) In a hypertensive patient, at least in first consultation, to zealously record BP in both right and left upper arms and in all three positions so as not to miss postural drops.

The most important aspect of applied medicine is, after all, the golden dictum of: “Primum non nocere-first do no harm”

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