Diabetes Complications: Erectile Dysfunction

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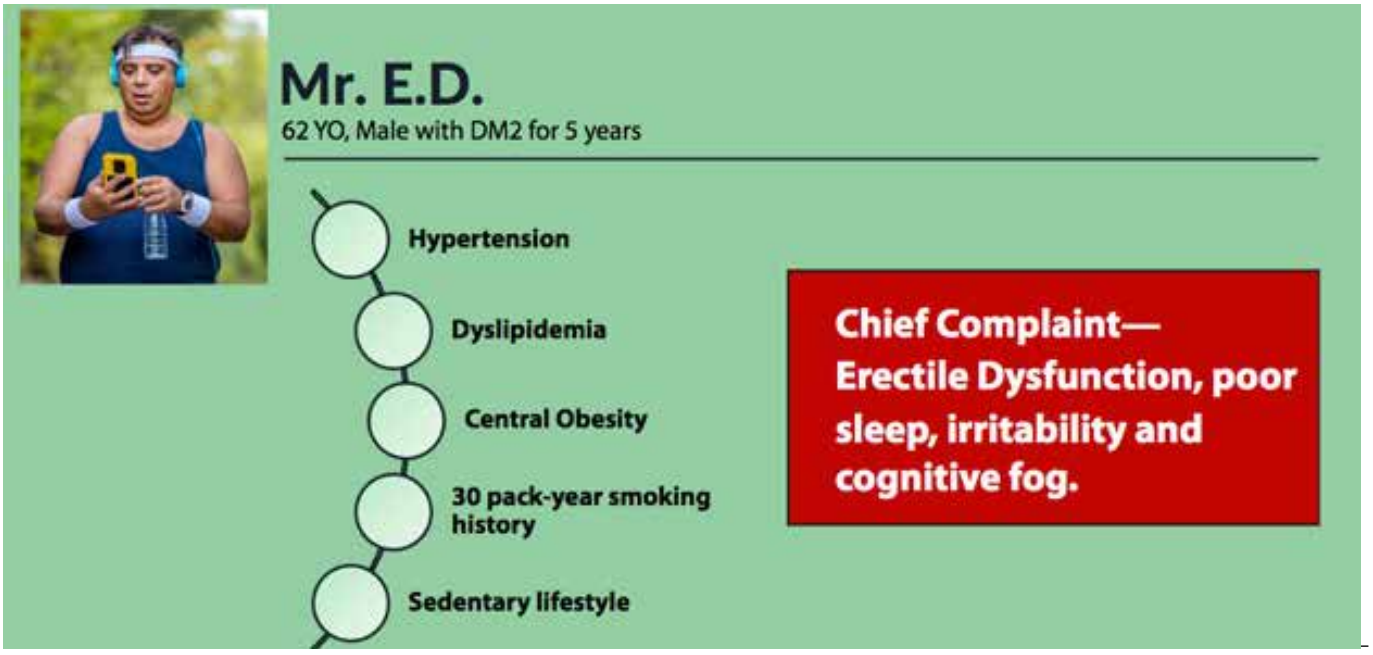
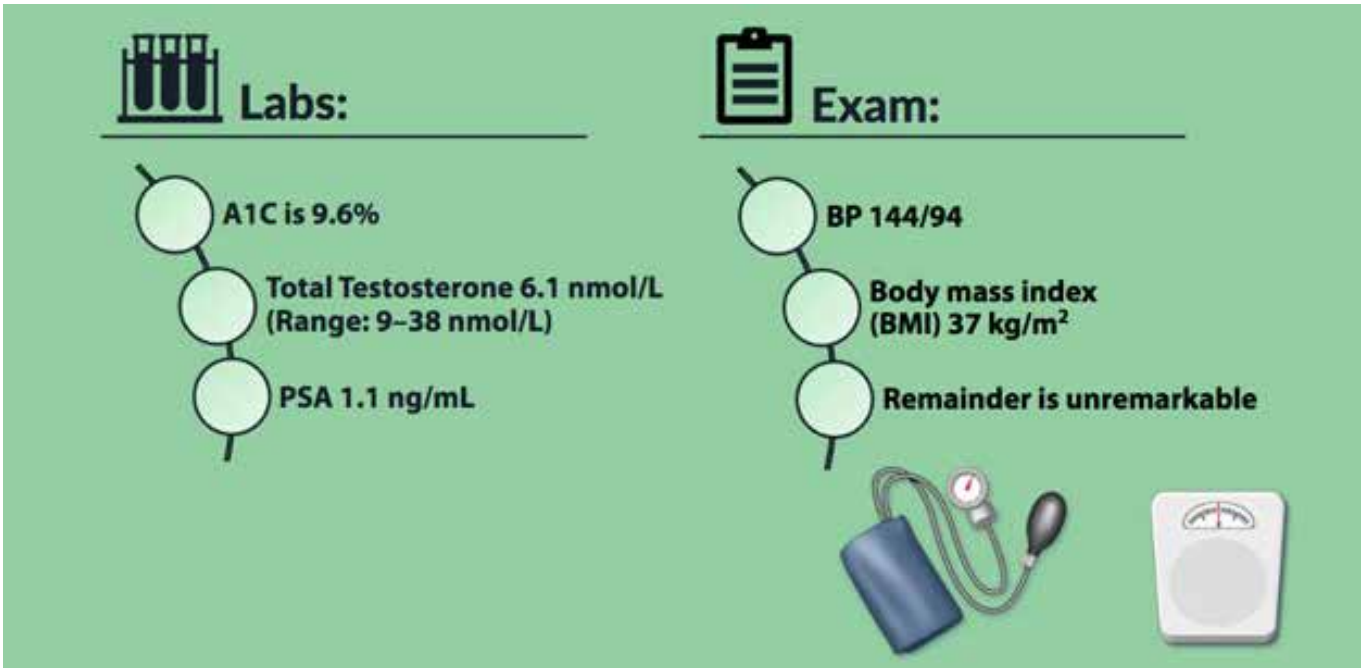
Mr. ED, a 62 year old man with type 2 diabetes for the past 5 years. His past medical history is notable for hypertension, dyslipidemia, central obesity, 30 pack-year smoking history, and sedentary lifestyle. His chief complaint is erectile dysfunction, poor sleep, irritability, and cognitive fog.

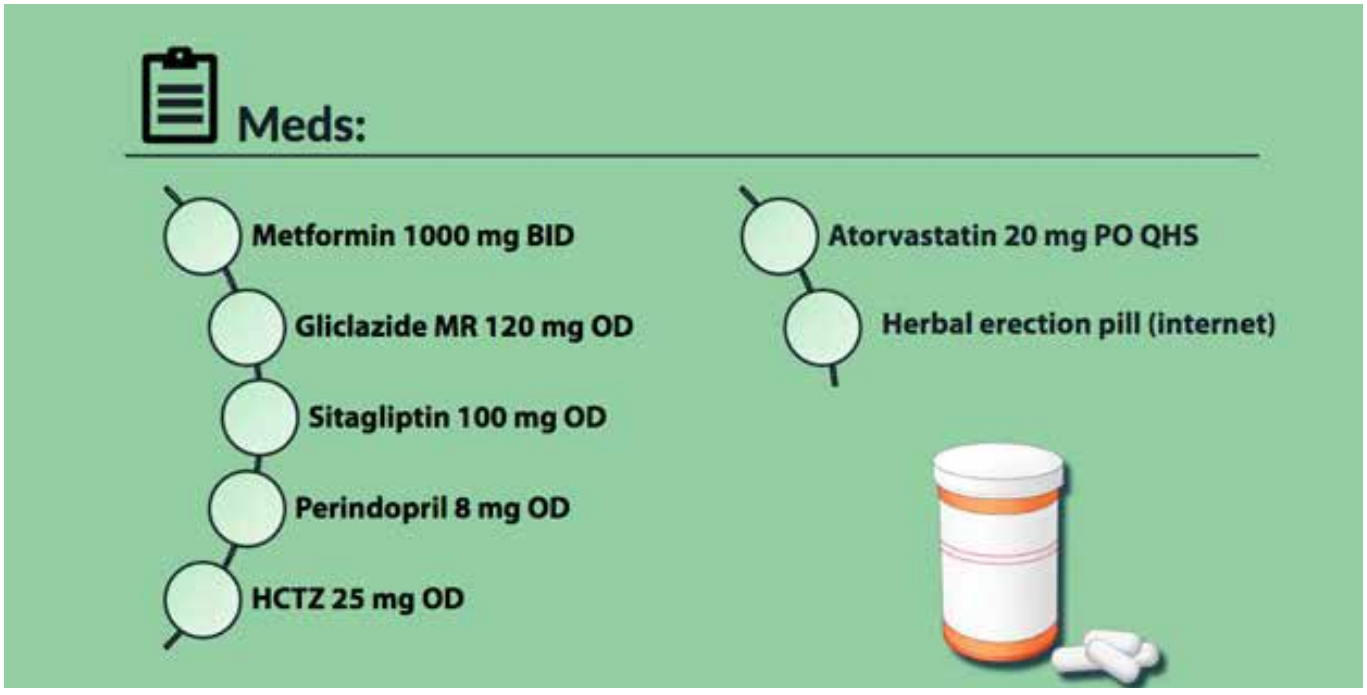
We order a few labs and here's what we find. His A1C is 9.6%, his total testosterone is 6.1 which is low and his PSA is 1.1 which is normal. On examination his blood pressure is 144 over 94. His BMI is 37 and the remainder of his examination is unremarkable.

What about his medication. He's on a number of diabetic medications as well as anti-hypertensive medications as well as a statin and he's ordered some herbal erection medications over the internet.



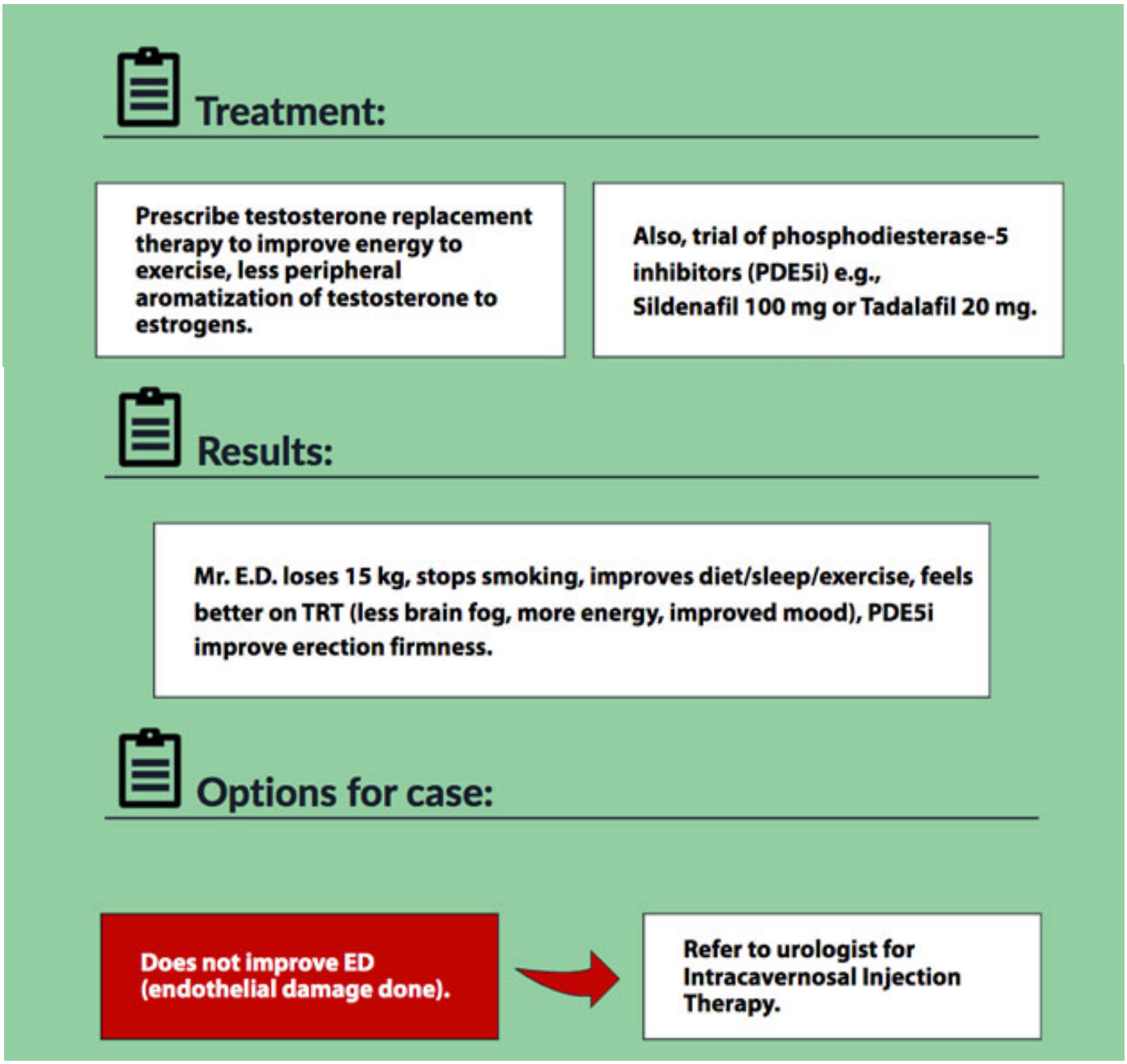


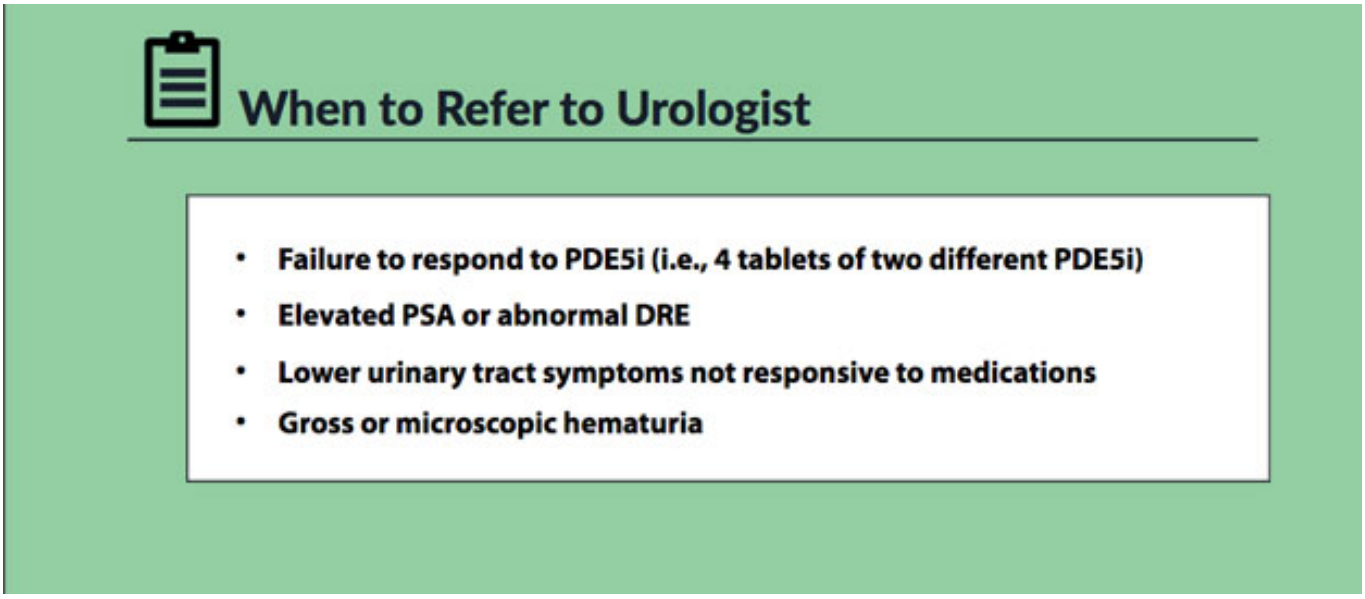
So in terms of a treatment what we decide is to prescribe testosterone replacement therapy with the goal to improve his energy to actually exercise. There will then be less peripheral aromatization of testosterone to estrogens and this will help him lose weight allowing for his testosterone levels to go up and change some of his diabetic parameters. Additionally we're



going to give him a trial of a PDE5i such as Sildenafil 100 mg or Tadalafil 20 mg to take on an as needed basis.

When we look at the results of this case study we see that Mr. ED in fact loses 15 kilograms. He's able to stop smoking and he's been able to improve his diet sleep and exercise. He feels much better on the testosterone replacement therapy notably he has less brain fog more energy and an improved mood and in fact now the phosphodiesterase





inhibitors have improved the firmness of his erections. Now what happens if his erectile dysfunction does not improve despite these lifestyle changes as well as medications. Well it may be a case where there is endothelial damage that is already too far gone, and in fact a referral to a urologist for additional treatments such as intracavernosal injection may be warranted.

So what about when to refer to urology. Well failure to respond to a PDE5i and failure would be four tablets of two different kinds of PDE5i elevated PSA or an abnormal DRE, urinary tract symptoms not responsive to medications, as well as gross or microscopic hematuria.

Clinical Pearls

A clear relationship, with shared risk factors, exists between diabetes, ED and CVD

Use of ED as a harbinger of CVD is most predictive in younger men (ED may precede CVD by 2-5 yrs, 3 avg)

The identification of ED may allow for risk reduction and preventative measures in large numbers of men