Erectile Dysfunction and Sexual activity in patients with angina

Egerman, May 2008
Ref DeBusk, JAMA Dec 17, 2003;v290, p3129 and Uptodate 16.1

1. A married 66 yom with a history of coronary artery disease status post angioplasty 6 years ago along with well controlled hypertension and hyperlipidemia requests sildenafil (a phosphodiesterase 5 inhibitor) for erectile dysfunction (ED). He has anginal symptoms when climbing two flights of stairs (6 METs). His current medications include metoprolol, lisinopril, atorvastatin, aspirin and intermittent sublingual nitrates. Physical examination is noncontributory.

True or false

a) Coital angina is one of the most common types of angina in males over age 60.
b) Coital angina can occur up to 3 days after the last coital episode.
c) Coital angina is rare in patients who are asymptomatic during strenuous exercise.
d) If walking two mph is equivalent to 2 METs (metabolic equivalent of the task, each MET = oxygen consumption 3.5 ml/kg/min), then coital activity is equivalent to 2-4 METs.
e) Sexual activity in established relationships becomes less vigorous over time.
f) Sexual activity is secondary only to anger as the cause of an acute myocardial infarction.

2. Risk stratification

Low risk patients can initiate or resume sexual activity or be treated for ED. (60% of patients)

Intermediate risk patients especially if sedentary need specialized cardiac assessment ETT (+/- nuclear imaging) or stress echocardiographic imaging. (30%)

High risk patients need to defer sexual activity until the cardiac condition is stabilized. (10%)

From below, risk stratify the respective condition:

a) moderate to severe valvular disease
b) uncontrolled hypertension
c) moderate stable angina
d) unstable or refractory angina
e) NYHA congestive failure class III/IV
f) MI < 2 weeks ago
g) High risk arrhythmias
h) Hypertrophic cardiomyopathy
i) Atherosclerotic disease including peripheral or cerebrovascular disease
j) MI < 6 weeks but > 2 weeks ago
k) Controlled hypertension
l) Mild stable angina
m) Uncomplicated MI > 6-8 weeks ago
n) Mild valvular disease
o) NYHA congestive failure class II
p) NYHA congestive failure class I

3. The patient above is given a prescription for sildenafil and presents to the emergency department with chest pain later that evening.

True or False

a) Nitrates are contraindicated in patients receiving phosphodiesterase inhibitors.
b) Management of coital angina includes nitroglycerin up to 3 tablets 5 minutes apart.
c) Nitrates have been implicated in one fifth of all deaths in patients receiving sildenafil.
d) The interaction between sildenafil and nitrates produces an idiosyncratic hypertensive reaction that leads to left heart failure and should be treated with afterload reduction.
e) Management of angina in patients treated with sildenafil include b blockers, calcium channel blockers, aspirin and morphine.
f) Nitrates should be avoided for 24 hours after a patient has received sildenafil.
g) Vardenafil (levitra) and tadalafil (cialis) should not be used with alpha blockers secondary to hypotension.
h) Caution should be used in patients with hypertrophic cardiomyopathy secondary to a reduction in preload and afterload producing greater outflow obstruction.

1. True or false

a) Coital angina is one of the most common types of angina in males over age 60.
False it represents 5% of all angina.

b) Coital angina can occur up to 3 days after the last coital episode.
False it occurs minutes to typically 2 hours after coitus.

c) Coital angina is rare in patients who are asymptomatic during strenuous exercise.
True.

d) If walking two mph is equivalent to 2 METs (metabolic equivalent of the task, each MET = oxygen consumption 3.5 ml/kg/min), then coital activity is equivalent to 2-4 METs. ***True***.

e) Sexual activity in established relationships becomes less vigorous over time.***True***

f) Sexual activity is secondary only to anger as the cause of an acute myocardial infarction. ***False physical exertion (5%) and anger (3%) constitute larger percents than sex (1%).***

2. Risk stratification

From below, risk stratify the respective condition:

moderate to severe valvular disease ***high***
uncontrolled hypertension ***high***
moderate stable angina ***intermediate***
unstable or refractory angina ***high***
NYHA congestive failure class III/IV ***high***
MI < 2 weeks ago ***high***
High risk arrhythmias ***high***
Hypertrophic cardiomyopathy ***high***
Atherosclerotic disease including peripheral or cerebrovascular disease ***intermediate***
MI < 6 weeks but > 2 weeks ago ***intermediate***
Controlled hypertension ***low***
Mild stable angina ***low***
Uncomplicated MI > 6-8 weeks ago ***low***
Mild valvular disease ***low***
NYHA congestive failure class II ***intermediate***
NYHA congestive failure class I ***low***

3.

a) Nitrates are contraindicated in patients receiving phosphodiesterase inhibitors.
True.

b) Management of coital angina includes nitroglycerin up to 3 tablets 5 minutes apart.
False, as this patient was taking sildenafil.

c) Nitrates have been implicated in one fifth of all deaths in patients receiving sildenafil.
Regrettably true.

d) The interaction between sildenafil and nitrates produces an idiosyncratic hypertensive reaction that leads to left heart failure and should be treated with afterload reduction.
False, this interaction causes hypotension even in healthy subjects.

e) Management of angina in patients treated with sildenafil include β blockers, calcium channel blockers, aspirin and morphine. ***True.***

f) g) and h) are all ***True***.