Adult Obesity Interventions: Medications

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When the CME Committee asks me to present 50% of my job in 40 minutes…

Learning Objectives

- Indications for Anti-Obesity Medications
- Reasonable Expectations
- Contraindications
- Medication Failure
- Obesity as a Chronic Disease

Case 1:

- 35 y/o female of Asian descent presents with c/o weight gain.
- C/O gradual weight gain since starting college 17 years ago. Was about 120lbs all through high school. Has attempted various diets – usually she will have about 10-15lbs of weight loss but as soon as she stops the diet she gains the weight back plus some.
- She has been going to the gym 3-4 times per week for the last 3 months but hasn't seen any change in her weight.
- She is getting married in 6 months and would really like to try that Belviq that she has seen on TV because she really wants to lose 30lbs before her wedding.

Case 1

- PMHx: None
- Meds: OCP
- PSHx: Appendectomy age 15
- ROS: + weight gain, fatigue. Otherwise negative
- BP: 110/65 HR: 78 RR: 12 Ht: 5' 2" Wt: 145lbs BMI: 26.5
- WC: 35 inches BFP: 34% NC: 14 inches
- PE: Unremarkable. No stigmata of insulin resistance or Cushing's. Normal adipose distribution.

Which of the following statements would not be appropriate to include in your counseling of this patient?

1. Exercise is important in overall fitness and health as well as in maintaining weight loss, but typically results in very little weight loss.
2. I understand you came in expecting a prescription for Belviq, but your current weight doesn't qualify for use of this medication. Is it ok if we talk a little about your nutrition?
3. Since you are overweight you are at risk for many weight related diseases. Those medications are to address those issues, not to get people in to wedding dresses. You already have the exercise part down, now you just need to work on eating less.
4. Typically, when we use medication to help with weight loss, it will need to be continued in order to maintain the weight loss.

Indications

- BMI > 27 with a weight related health consequence
- BMI > 30

Fat Mass Disease

- Heart Failure
- Hypertension
- Pseudotumor Cerebrii
- Nerve Entrapment Syndromes
- OSA, hypoventilation
- NAFLD
- GERD, hernias
- Stress Incontinence
- Arthritis, Pain, Decreased Mobility
- Skin Infections, Venous Stasis
- Sexual Dysfunction/Fertility/Poor body image

Adiposopathy

- Diabetes, Insulin Resistance
- Lipid issues
- Coronary Vascular Disease
- Strokes
- Asthma
- Gallstones
- NASH
- Kidney Stones
- Gout
- Cancers
- PCOS, hypogonadism
- Depression

Case 1

- Screening questions for OSA – negative
- Ordered fasting blood work
- Lengthy discussion about weight as a chronic disease
- Nutrition counseling
- Asked to food journal and start some goal setting
- Return in 2 weeks

Case 1 – 2 week follow up

- Labs are unremarkable, except a HOMA-IR of 2
- 2lb loss, frustrated that she hasn't lost more because it has taken a lot of effort to not eat the lunches she caters
- Notes that getting more protein throughout the day seems to have helped with the fatigue
- More counseling about reasonable expectations, scheduled follow up in 1 month

Case 1 – Since 2016

- After about 10lbs of weight loss she started to struggle with hunger so we added 15mg of phentermine
- Over 7 months she lost to 132lbs (-16lbs)
  - WC – 30 inches
  - BFP – 28.5
  - HOMA-IR <1.0
- All time low was at 18 months – 122lbs
  - Found she couldn't maintain it very easily (expectations!)
  - For the last year she has maintained between 127-130lbs with 15mg of phentermine every other day
  - Stress and social gatherings are her triggers, so during those times she takes it daily

Case 2

- 55 y/o male referred by orthopedics for weight loss prior to a knee replacement – needs to get under 400lbs
- Endorses struggling with weight his whole life. Strong family h/o weight – mother was >400lbs and sister and 2 brothers are all >300lbs
- Intermittent success with various diets and exercise to lose weight, but never able to maintain for long and ends up weighing more than when he started
- Eats out for every meal because house burned down 3 years ago. Drinks sweet tea all day and at least 3 Mountain Dews.

Case 2

- PMHx:
  - Hypertension
  - OSA on BiPAP
  - Gout
  - Bilat LE Swelling
  - DJD Bilat Knees
  - DM2
  - Asthma
  - Chronic Back Pain
- PSHx:
  - Left Knee Replacement
  - Roux en Y – 2002
- Meds:
  - Metformin 500mg BID
  - Allopurinol 600mg q day
  - Norco prn pain
  - Lyrica 100mg tid
  - Furosemide 40mg daily
  - Symbicort 2 puffs BID
  - Cymbalta 60mg daily

Case 2

- ROS: positive for weight gain, shortness of breath, muscle and joint pain, paresthesias, insomnia

- BP: 142/84 HR: 106 RR: 18 O2: 98% RA
- Ht: 72in Wt: 489.4lbs BMI: 66.4

- PE: acanthosis around the neck with multiple skin tags, heart is tachy but regular rhythm, lungs clear, large overhanging pannus with malodorous erythema, bilateral lower extremities with pitting edema to the knees and chronic venous stasis changes

No stigmata of Cushings

Case 2

- Labs:
  - Electrolytes normal
  - GFR of 76
  - LFTs normal
  - Glucose 110
  - CBC normal
  - A1c 6
  - TSH 2.4

In addition to lifestyle counseling and modification, which new medication would you consider adding first?

- 1. Buproprion/Naltrexone (Contrave)
- 2. Liraglutide (Saxenda)
- 3. Phentermine/Topiramate (Qsymia)
- 4. Lorcaserin (Belviq)

Not Contrave

- Using Norco prn, so naltrexone contraindicated
- His BP is also borderline and he isn't on medication
- Other contraindications:
  - Uncontrolled Hypertension
  - Seizure d/o
  - Undergoing abrupt d/c of alcohol, benzos, antiepileptics
  - During/within 14 days of MAOI use
  - Pregnancy/Nursing

Not Contrave

- MC SE
  - Nausea – high protein, lots of water
  - Constipation
  - HA
  - Vomiting
  - Dizziness
  - Insomnia
  - Dry Mouth
  - Diarrhea
- Monitor for:
  - Increases in BP or HR
  - Hepatotoxicity
  - Angle close glaucoma
  - Depression/suicidal thoughts
  - Hypoglycemia in pts with DM2

Not Belviq

- He's on an SNRI, so not my 1st choice as it could increase his chances of Serotonin Syndrome
  - Selective Serotonin 2C Receptor Agonist

- MC SE
  - HA
  - Dizziness
  - Fatigue
  - Nausea
  - Dry Mouth
  - Constipation
  - Cough
  - Reduced Heart Rate
  - Hyperprolactinemia

Not Belviq

- Contra-indications
  - Signs or symptoms of valvular heart disease
  - Caution if using heavy machinery – memory, attention
  - Caution in patients with psychiatric d/p – euphoria, disassociation
  - Caution in patients with depression – monitor for suicidal thoughts
  - h/o priapism
  - Pregnancy/nursing mothers

Saxenda – my 1st Choice

- Secondary benefit of treating his DM2
- He's lost his feeling of restriction – delayed gastric emptying may give him back some end of meal signaling

- MC SE
  - Nausea
  - Hypoglycemia
  - Diarrhea
  - Constipation
  - Vomiting
  - Dyspepsia
  - Fatigue
  - Dizziness
  - Abdominal pain/increased lipase

Saxenda

- Contra-indications
  - Personal/Fam h/o MTC or MEN2 (Black Box)
  - Pregnancy or Nursing
  - H/o pancreatitis

- Monitoring
  - Suicidal thoughts or behaviors
  - Renal impairment (associated with dehydration from nausea, diarrhea)
  - Heart rate – potential for increased rate
  - Hypoglycemia if used with insulin secretagogues

Qsymia – my 2nd choice

- Struggles with hunger and large portions – phentermine great for appetite suppression and topiramate is great for BED
- Topiramate might also make his Mountain Dew taste bad – BONUS!!
- He already has paresthesias, so could worsen them
- May potentiate hypokalemia of non-potassium sparing diuretics (he is on furosemide)
- Resting heart rate already >100bpm

Qsymia

- MC SE
  - Paresthesias
  - Dizziness
  - Dysgeusia
  - Insomnia
  - Constipation
  - Dry Mouth
  - Spotting – may alter exposure to OCP's, causing irregular bleeding, NOT increased risk of pregnancy. OCP's should not be stopped if spotting occurs.
- Lab Monitoring
  - BMP q 3-6 months – monitor for metabolic acidosis
  - Monthly pregnancy tests – at home or in office

Qsymia

- Contra-indications
  - Glaucoma
  - Hyperthyroidism
  - MAOI use
  - Pregnancy/nursing – cleft palette – should be using 2 forms of birth control
- Monitoring – d/c if
  - Unacceptable increase in heart rate
  - Suicidal thoughts/behaviors
  - Acute myopia and secondary angle-closure glaucoma
  - Unacceptable sleep and mood d/o
  - Cognitive impairment

Case 2

- Saxenda not covered – SURPRISE!
- Added off-label phentermine 15mg/Trokendi XR 25mg ➔ 50mg ➔ 100mg (HR has gone down with weight loss)
- Over the next 3 months lost 25 lbs but started to feel as though he was plateauing
- Added Ozempic – A1c was 6 but he has the diagnosis of DM2, so we can get it covered

Case 2

- At 8 months and 425lbs, patient had Overstitch and in the first month lost an additional 35lbs to 390lbs
- He continues to lose weight and will be going for TKA later this summer
- In my back pocket
  - SGLT-2
  - If pain improves, drop cymbalta and start wellbutrin
  - If pain improves, drop narcotics and start naltrexone
  - Genetic testing – upcoming drug trials???
    - MC4R deficiency with very promising results

Case 3

- 45 y/o female referred by PCP for "help with weight loss. Currently on Contrave and struggling to continue losing weight."
- Had twins at age 36, but lost the weight with WW ~180lbs
- At age 39, she was assaulted and knee was injured. Over following 1-2 years gained ~60lbs (highest 240lbs)
- At age 43 she started working with a counselor to address depression and the trauma

Case 3

- 1 year prior to seeing me, started on off label buproprion/naltrexone by PCP and saw health coach monthly and mostly worked on eating less – lost 24lbs (10%) in 6 months and has maintained that loss for 6 months
- She is swimming twice per week and then cycling or walking another 1-2 times per week so can't eat any less than she does because the exercise makes her hungry
- Not willing to follow a "diet" because she has done that in the past and never stuck with it for long

Case 3

- PMH: GERD, Chronic Migraine, Depression
- PSHX: Left knee scope (2013), C-section (2009)
- Meds:
  - Buproprion SR 150mg BID/Naltrexone 25mg BID
  - Fluoxetine 40mg daily
  - Trokendi 100mg daily/Sumatriptan 100mg prn
- Social:
  - Quit smoking 2017
  - Quit soda and beer, 3 mixed drinks on Fridays and Saturdays

Case 3 – Physical Exam

- ROS: positive for fatigue, weight gain, heartburn
  - Denies snoring, morning headaches, joint pain
- BP – 124/79 HR – 74 Resp – 16 Temp – 97.5
- Ht: 70in Wt: 216.9lbs BMI: 31.1 BFP: 37% WHR: 0.88
- Neck circumference normal. No hirsutism or acanthosis. No stigmata of Cushing's. Normal CV exam. Mallampati of 2.

What would be the appropriate management?

1. Have a discussion with her regarding reasonable expectations
2. Remind her that the medications only work if she works as well and instruct her to start food journaling so she can identify what she's doing wrong
3. Send her for fasting blood work to assess for insulin resistance
4. 1 and 3
5. All of the above

Reasonable Expectations

- On average, patients will get a 10% TWL over 6 months
- If they want more, they should consider surgery
  - On average, patients will get 25-30% TWL

"Whatever you do to get the weight off, you must continue doing to keep the weight off."

Case 3

- Started out at 240lbs (BMI – 34.4), wanted 60lbs of weight loss = 25%
- She lost the expected 10% and then plateaued at 216lbs (BMI – 31.1)
- Very important to set up expectations from the very beginning and continue to assess them along the way.
- POSITIVELY LOVED that this PCP didn't stop the buproprion/naltrexone!!

Case 3

- Congratulated her on all the excellent progress she had made
- Reframed her view of exercise
  - Cardiovascular fitness, not weight loss
  - Preservation of lean body mass – ADD RESISTANCE
- Fasting Blood Work
- Nutrition recommendations:
  - Eliminate snacks
  - Decrease EtOH to 1 drink on Friday and Saturday
  - Eat her protein first at meals, then veggies, then fruit or grains

Case 3 – Another Question

- Labs
  - A1c: 5.3
  - Fasting glucose: 89
  - Fasting insulin: 14.4
  - TG: 77 HDL: 75
- Does this patient have Insulin Resistance?
  - 1. Yes
  - 2. No

Assessing Insulin Resistance

- Fasting glucose >95 (hers was 89)
- Fasting insulin >9 (hers was 14.4)
- HOMA-IR > 2.9 (hers was 3.1)
- TG:HDL >3 (hers was 77:75 = 1.02)
- So about 3 days after her appointment we called and started her on metformin XR 750mg po qpm with dinner x 1 week then 2 tabs po qpm with dinner

Case 3 – 2 week follow up

- Continues to track on her app, by eating protein first her carb intake has dropped significantly
- She has added resistance training 2x/week and enjoys it
- Since adding metformin, she has noticed her intense hunger after exercise has improved
- She has lost 6lbs since her last visit!

Case 3 – So far…

- At 3 month visit with us
  - Continues on off label buproprion/naltrexone
  - Continues with metformin
  - Continues to refrain from snacking and eats intuitively
  - Has lost an additional 17lbs (199lbs)

Class Participation

It's only when we stop judging our patients and start viewing obesity as the chronic disease that it is that we will be able to treat our patients effectively.

Questions?