



## Anti-Obesity Drugs: A Necessary Part of Treatment

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Worldwide obesity prevalence has nearly doubled since 1980 [1]. Obesity is reaching epidemic proportions worldwide and it is correlated with various comorbidities, among which the most relevant are diabetes mellitus, arterial hypertension, and cardiovascular diseases [2].

Obesity management is a modern challenge because of the rapid evolution of unfavorable lifestyles. Due to numerous co-morbidities, obesity represents a serious health and socioeconomic problem worldwide [3]. Lifetime drug expenditures are higher for obese people than for 'healthy-living' people, despite shorter life expectancy for the obese [4].

Since 1998 obesity is recognized as a disease for NIH, and several other medical associations have done so since, the latest being the American Medical Association in 2014 [5]. However, many doctors, patients and sections of the media see obesity as an unhealthy choice, easily treated by lifestyle changes [6]. Unfortunately, the current medical attitude is to treat the complications of obesity (dyslipidemia, hypertension, diabetes, and cardiovascular diseases).

The potential of treating obesity itself is huge, bearing in mind that a volitional weight loss of 10 kg is associated with important risk factor improvement: blood pressure -10 mmHg, total cholesterol -10%, LDL cholesterol -15%, triglycerides -30%, fasting glucose -50%, HDL cholesterol +8% [7]. It is well known that in metabolically unhealthy obese individuals, a weight loss of 5 - 7% is sufficient to lead to an important improvement in cardiovascular risk factors, osteoarthritis or sleep apnea, even if the achieved weight is far from a 'normal' Body mass index (BMI) of 25kg/m<sup>2</sup> [8,9].

Pharmacotherapy should be an integral part of comprehensive obesity management. Drug therapy can assist in weight loss and its maintenance in those individuals who do not achieve appropriate weight loss through lifestyle interventions alone. The use of medications for weight loss will probably work during its use, but without efforts to maintain the new weight, after its discontinuation, the lost weight will probably return [10]. So, any medication used to treat obesity must be safe for use in the long term. At least the majority of obese patients, always as possible, its use should be continuous. This situation happens with many known metabolic diseases, such as diabetes mellitus, hypertension and hypercholesterolemia, all for which the use of medications on a long-term basis is well accepted between doctors and patients [11]. Of course, long-term surveillance

is necessary with any drug of chronic use and should be no different with anti-obesity medications.

Obesity medications approved for long-term use, when prescribed with lifestyle interventions, produce additional weight loss relative to placebo ranging from approximately 3% of initial weight for orlistat and lorcaserin to 9% for top-dose (15/92mg) phentermine plus topiramate-extended release at 1 year. The proportion of patients achieving clinically meaningful (at least 5%) weight loss ranges from 37% to 47% for lorcaserin, 35% to 73% for orlistat, and 67% to 70% for top-dose phentermine plus topiramate-extended release [12]. All 3 medications produce greater improvements in many cardiometabolic risk factors than placebo. There are many other medications, but not approved for long term use.

In conclusion, medications approved for long-term obesity treatment, when used as an adjunct to lifestyle intervention, lead to greater mean weight loss and an increased likelihood of achieving clinically meaningful 1-year weight loss relative to placebo. There are reasons to be concerned about drugs that are used on a chronic basis by a significant proportion of the population. However, this concern is not a reason to private patients from improving treatments options for a global epidemic disease.

## References

- Hainer V, Aldhoon-Hainerová I (2014) Tolerability and safety of the new anti-obesity medications. *Drug Saf* 37: 693-702.
- Middleton KM, Patidar SM, Perri MG (2012) The impact of extended care on the long-term maintenance of weight loss: a systematic review and meta-analysis. *Obes Rev* 13: 509-517.
- Casazza K, Fontaine KR, Astrup A, Birch LL, Brown AW, et al. (2013) Myths, presumptions, and facts about obesity. *N Engl J Med* 368: 446-454.
- Halpern B, Halpern A (2015) Safety assessment of FDA-approved (orlistat and lorcaserin) anti-obesity medications. *Expert Opin Drug Saf* 14: 305-315.
- American Medical Association. Resolution 420 (A-13): recognition of obesity as a disease. Proceedings of the House of Delegates 162nd Annual Meeting; 15 -- 19 June 2013. Available from: <http://www.ama-assn.org/assets/meeting/2013a/a13-addendum-refcommd.pdf> June 19, 2013 [Accessed 14 August 2014]
- Katz DL (2014) Perspective: Obesity is not a disease. *Nature* 508: S57.
- Pagotto U, Vanuzzo D, Vicennati V, Pasquali R (2008) [Pharmacological therapy of obesity]. *G Ital Cardiol (Rome)* 9: 83S-93S.

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8. Knowler WC, Barrett-Connor E, Fowler SE, Hamman RF, Lachin JM, et al. (2002) Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med* 346: 393-403.
  9. Wing RR, Lang W, Wadden TA, Safford M, Knowler WC, et al. (2011) Benefits of modest weight loss in improving cardiovascular risk factors in overweight and obese individuals with type 2 diabetes. *Diabetes Care* 34: 1481-1486.
  10. Aronne LJ (2002) Obesity as a disease: etiology, treatment, and management considerations for the obese patient. *Obes Res* 10 Suppl 2: 95S-96S.
  11. Halpern B, Halpern A (2015) Why are anti-obesity drugs stigmatized? *Expert Opin Drug Saf* 14: 185-189.
  12. Yanovski SZ, Yanovski JA2 (2014) Long-term drug treatment for obesity: a systematic and clinical review. *JAMA* 311: 74-86.