

ANALYSIS ON THE CONSUMPTION OF ANTI-OBESITY MEDICINES FROM PHARMACEUTICAL UNITS

Daina Lucia, Suciu Ramona, Daina Cristian, Chereji Anca, Cuc Albinita, Abrudan Simona,
Venter Alina, Baldea Corina

University of Oradea
Faculty of Medicine and Pharmacy
luci_daina@yahoo.co.uk

Abstract

Obesity represents a public health problem, every year 30,000 deaths associated to it being recorded worldwide; it is the result of social and economic pressures, which limit people's control over their lives (Ravussin E, 2006). Starting from the assumption that the risk of complications associated with obesity has increased significantly, this study aims to examine the extent to which patients are interested in the consumption of medicines and food supplements with anti-obesity action.

The results of this study indicate that the market of anti-obesity products is, nevertheless, predictable, as sales increase in summer, during vacations and holidays, but is also influenced by the "fashion" set by celebrities, TV ads and women magazines (Seidel J.C., 2005). Anti-obesity best selling products are, as expected, the ones that can be bought without prescription: teas, nutritional supplements and OTCs, the ethical ones, which are sold only with prescription, being subject to medical rigor.

Key words: obesity, drugs, pharmacy

INTRODUCTION

Obesity is a direct consequence of the fact that society prohibits control over time, which allows the aggressive sale of unhealthy food products. Although discussions related to this health problem seem to be ever-present in specialized magazines and not only, the results of the action for drawing attention upon obesity-associated problems have not become obvious yet, especially because people remain "prisoners" of habits dictated by society and their environment (Musaiger AO., HM., Radwan, 2005). The fight against obesity has just begun and will be difficult to carry on, as it involves significant costs. However, governments worldwide have already begun public education campaigns on food habits and the effects of sedentary lives, while doctors and pharmacists started to address the possibility of treating obesity as a disease in itself, which requires medical treatment (Wahlqvist ML., et al, 2005).

MATERIAL AND METHODS

The study was conducted at the level of eight pharmacies in Oradea, which contributed with their sales reports regarding the best known and

most commonly prescribed drugs and herbal products intended to overweight and obese people. Between January 2009-June 2010, we evaluated the sales of anti-obesity drugs with central action (Sibutramine and amfhepranona), with peripheral action (orlistat) and food supplements produced for those who want to loose weight (chromium-based products, conjugated linoleic acid, the diet capsule, weight loss teas) (Cristea A.N., 2006).

RESULTS AND DISCUSSION

During the spring-summer period of vacations and holidays, the consumption of diet drugs is higher than in the cold season.

1. *Data regarding the consumption of centrally acting anti-obesity products*

A medicinal product often prescribed by doctors and nutritionists, and increasingly appreciated by physicians and patients for its effects in the therapy of obesity is Sibutramine. Its international brand name (IBN) is Reductil, or Lindaxa. But, in January 2010, the European Medicines Agency has decided to withdraw from the market medicinal products containing Sibutramine. This decision was taken after the SCOUT study (Sibutramine Cardiovascular Outcome Trial), which was conducted on 10 000 patients over six years (WHO Expert Comitee WHO, 2006). This study demonstrated an increased risk of developing serious cardiovascular, non-lethal events, such as stroke or heart attack, in patients treated with Sibutramine, as compared to the placebo group (Frederich RC., et al., 2006).

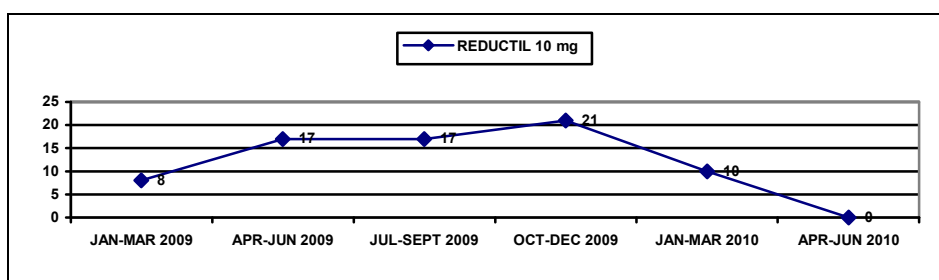


Fig. 1 – The evolution of sibutramine (Reductil) consumption between Jan 2009 – Jun 2010

Unfortunately, it is not the first anti-obesity medicine suspended from the market: during the 90s other anti-obesity products, based on fenfluramine and its derivatives, have also been withdrawn from the market. In our country Isolipan, which included dexfenfluramine, used to be sold.

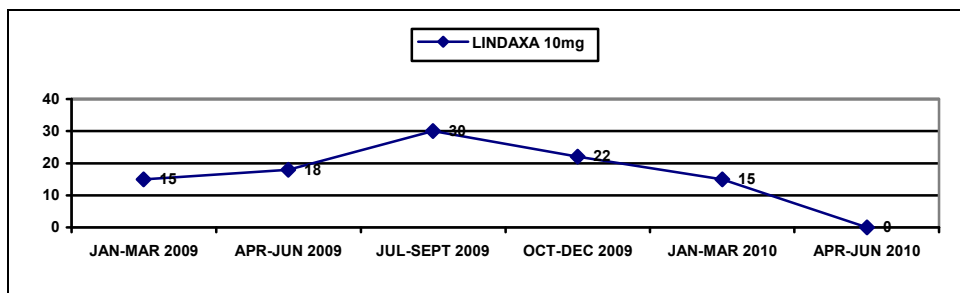


Fig. 2 – The evolution of sibutramine (Lindaxa) consumption between Jan 2009 – June 2010

Another medicine that used to be prescribed in the past – amfepranona (Regenon after the Common International Denomination) is almost forgotten today, due to its negative side-effects of anorexigens, with which it was associated quite often (Dittrich A, et al., 2005).

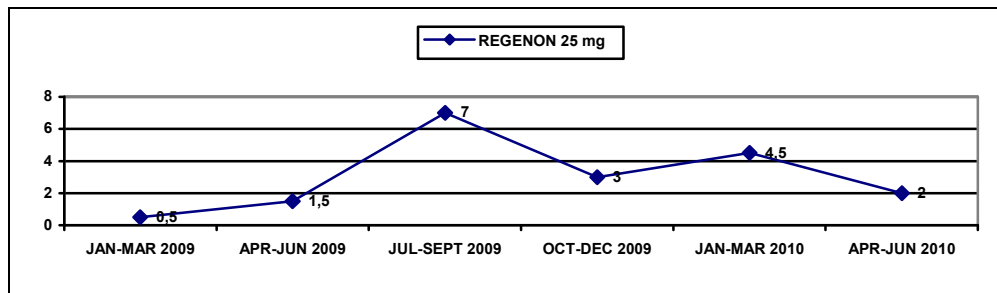


Fig.3 – The evolution of amfepranona (Regenon) between January 2009 – June 2010

2. The consumption of anti-obesity products with peripheral action

Another product – orlistat 120 mg (Xenical after the Common International Denomination) proved its efficiency and tolerability in time. For this reason, a similar product, but in a smaller quantity, has been introduced on the market – orlistat 60 mg (Alli), also sold as OTC (Over the Counter). This has been presented on TV and in women magazines, which determined an increase in the consumption of anti-obesity medicines with peripheral action, between April 2009 and June 2010.

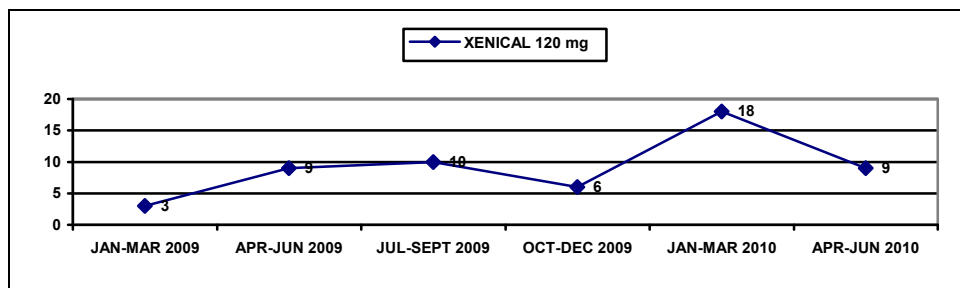


Fig.4 – The evolution of orlistat (Xenical) consumption in the period Jan 2009 – Jun 2010

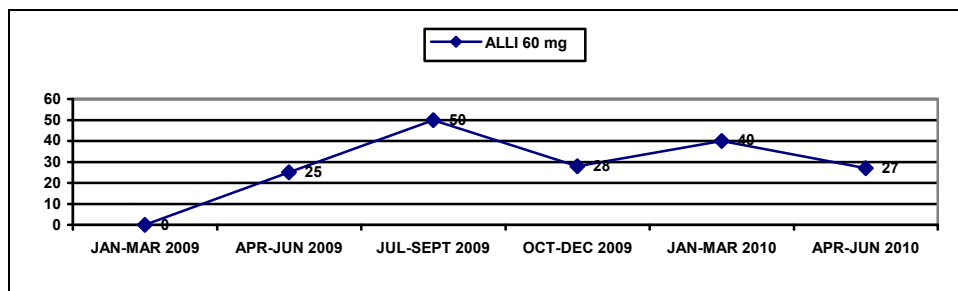


Fig. 5 – The evolution of orlistat (Alli) consumption in the period Jan 2009 – Jun 2010

3. The consumption of anti-obesity food supplements

Chromium and conjugated linoleic acid (CLA)-based products mark a peak-consumption during spring months, when they are targeted and advertised in mass media (TV, magazines) and by means of brochures distributed by post. These are niche products, which are sold all over the year, but not as much in the period when people want to loose weight very quickly, as their action is not spectacular (Lean M. E. J, 2006). Chromium-based products usually sell at a constant rate, as they are also prescribed to diabetics, due to their effect of reducing the taste for sweets.

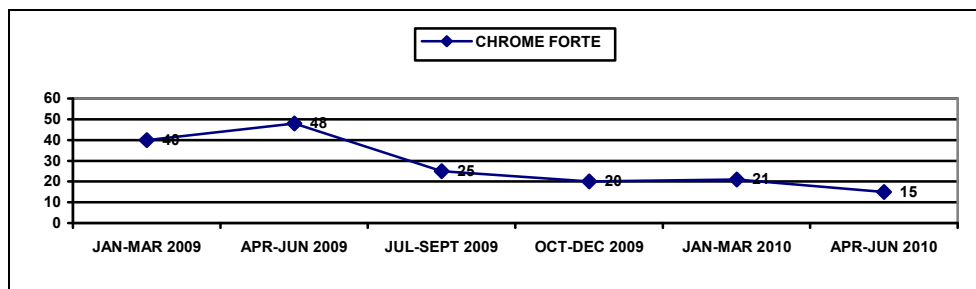


Fig. 6 – The evolution of Chrome (Chrome forte)-based products consumption in the period January 2009 – June 2010

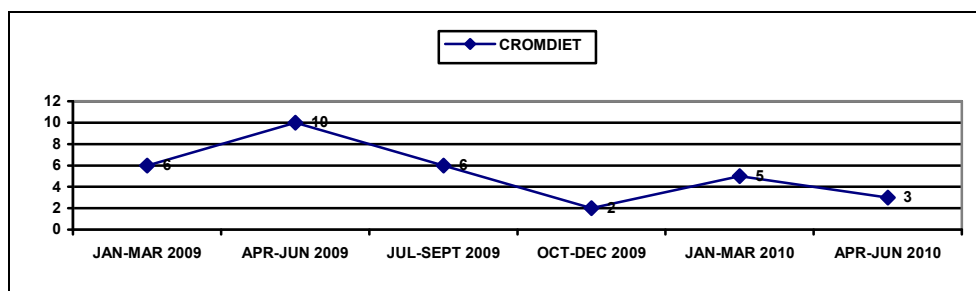


Fig. 7 - The evolution in the consumption of Chrome (Cromdiet)-based products in the period January 2009 – June 2010

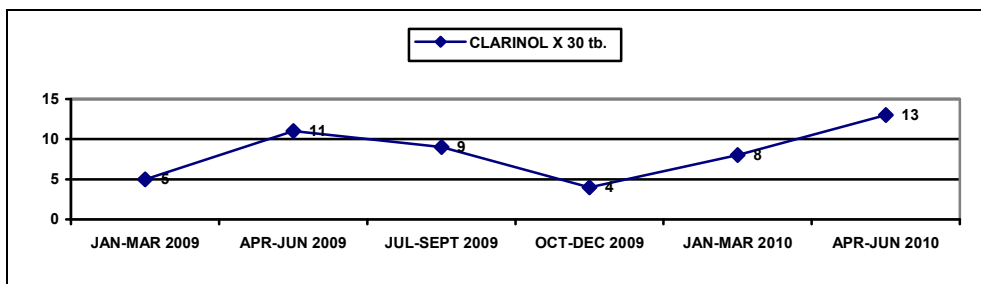


Fig. 8 - The evolution in the consumption of CLA (conjugated linoleic acid - Clarinol)-based products in the period January 2009 – June 2010

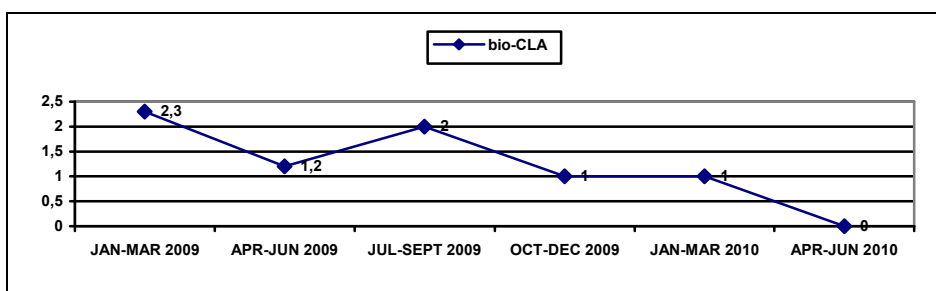


Fig. 9 - The evolution in the consumption of CLA (conjugated linoleic acid – bio-CLA)-based products in the period January 2009 – June 2010

Among the medicines purchased by people with the view of losing weight, which are sold without prescription as “nutritive supplements”, the best-sold product is the already famous “weight-loss pill”. Though its composition is still unknown, it continues to be bought by patients, as it is aggressively advertised in certain types of magazines, or warmly recommended by different users. Despite its obvious efficiency in a short period of time, its possible average or long-term side-effects are still unknown. For this reason, the product has been temporarily suspended from the market, whether it was sold under its original name or under derivative names (Dittrich A., et al, 2005).

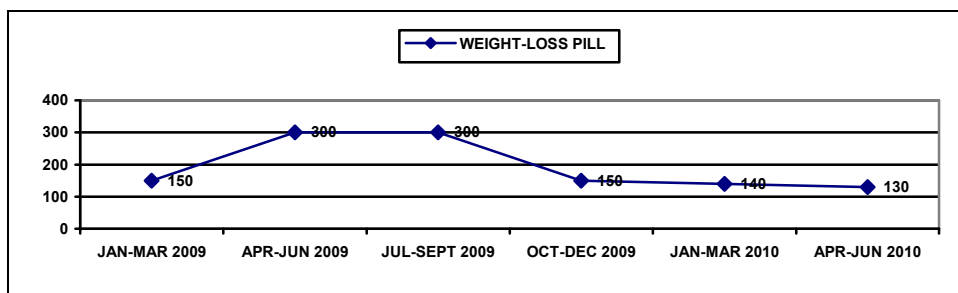


Fig. 10 - The evolution of the “weight-loss pill” consumption in the period January 2009 – June 2010

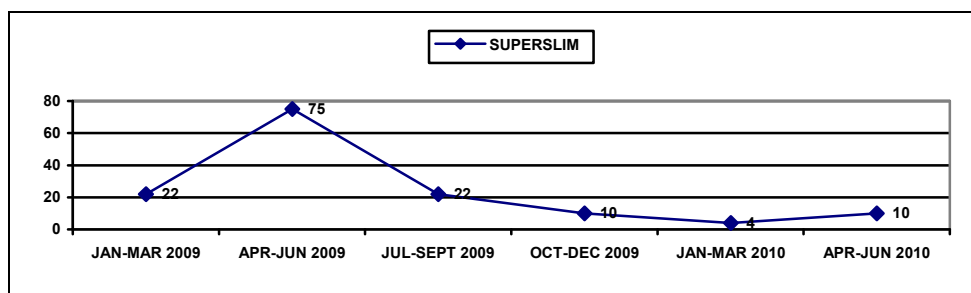


Fig. 11 - The evolution of the “weight-loss pill” (superslim) consumption in the period January 2009 – June 2010

The consumption of herbal-based, phyto-therapeutic products aimed at controlling weight is much more extended than the consumption of ethical products (medicines that are sold only with medical prescription). This is due to the fact that ethical medicine are sold, as indicated above, only with prescription, and only few people seek the advice of a nutritionist for reasons such as (Rissanen A, 2007):

- the consultation of a nutritionist is perceived as a “trifle”, a “fashion”;
- the consultation of a doctor specialized in nutrition may be quite expensive and unapproachable for many overweight or obese patients;
- nutritionists do not “promise” spectacular results in a short period of time, as different diets guarantee, though nobody makes reference to their “yo-yo” effect.

Of course, there is also the price issue, food supplements and plant-based products being significantly cheaper.

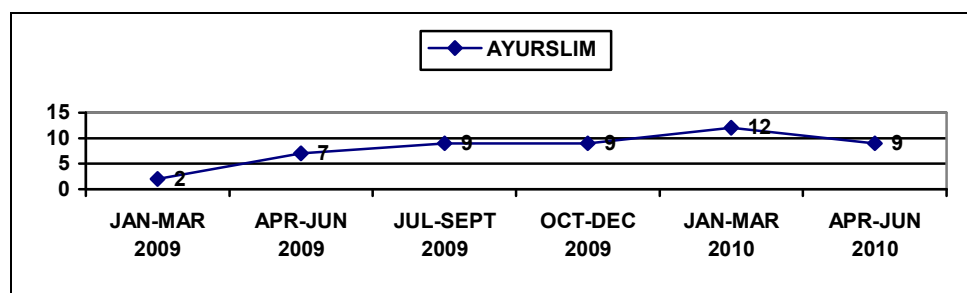


Fig.12 – The evolution in the consumption of phytotherapeutic products, capsules or compressed tables (Syurslim), in the period January 2009 – June 2010

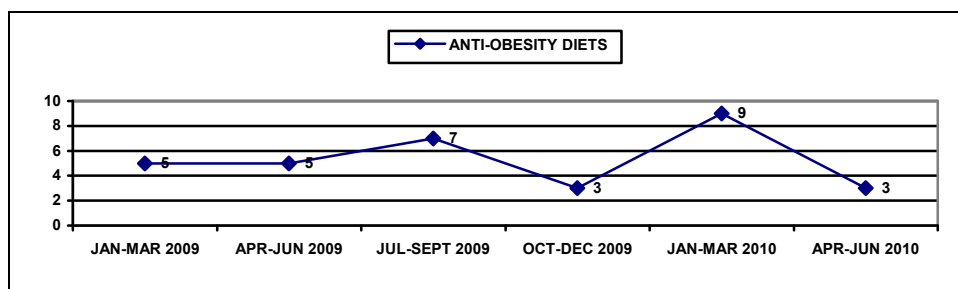


Fig.13 – The evolution in the consumption of phytotherapeutic products, capsules or compressed tablets (anti- obesity diets) in the period January 2009 – June 2010

Other products that proved useful in anti-obesity diets – teas - also sell very well, especially during holidays-periods, as indicated above. The best-sold tea for losing weight is “the anti adipose Sanye tee”. Its success, however, cannot be associated only with its anti-obesity effect, as it is also used by persons suffering from constipation, being a very good laxative.

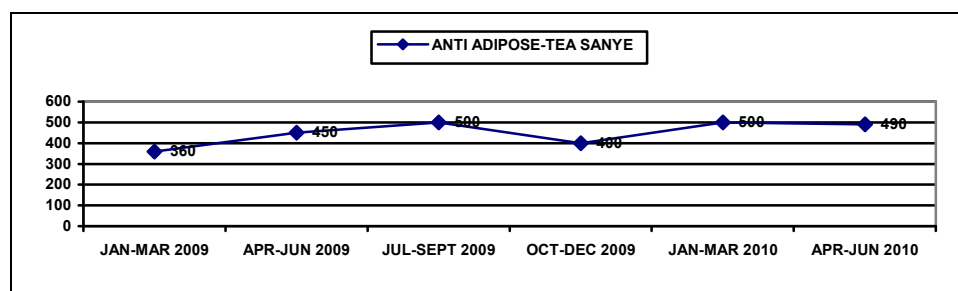


Figure 14 – The evolution of anti adipose tea-consumption in the period January 2009-June 2010

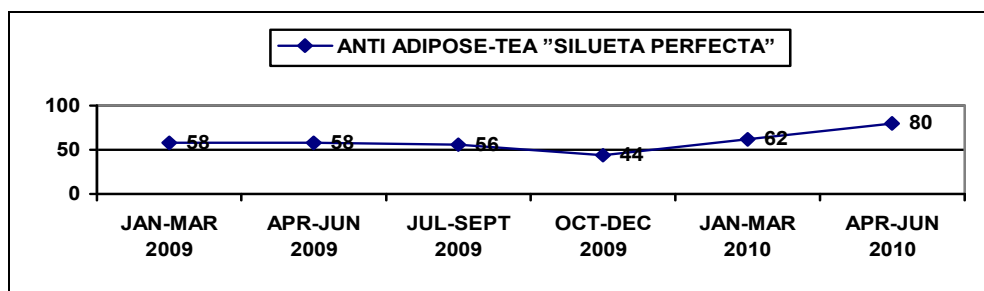


Figure 15 – The evolution of anti adipose tea-consumption in the period January 2009-June 2010

CONCLUSIONS

The medicinal treatment of obesity works by inhibiting the increased appetite of the obese person, by stimulating general catabolism and the elimination of water from the body.

The consumption of anti-obesity drugs is varied, the best-sold medicines being the ones that may be purchased without medical prescription, the so called OTCs (Over the Counter) products such as weight loss teas or nutritive supplements.

The period with increased consumption of anti-obesity drugs may be associated with consumers' desire to loose weight quickly and obtain the ideal body shape: in spring-summer and during vacations and holidays.

REFERENCES

1. Cristea A.N., 2006, - *Tratat de farmacologie*, ediția I; Ed. Medicală, București: 58-61
2. Dittrich A., D.Friebe, HJ. Zunft, IU. Leonhauser, 2005, Health promotion and nutrition counseling for obese patients-a responsibility of medical care, *Z-Arztl-Fortbild-Jena*, Aug; 89(4): 382-5
3. Frederich RC., B. Lollmann; A. Hamann, A. Napolitano-Rosen, BB. Kahn, BB. Lowell, JS. Flier, 2006, Expression of ob mRNA and its encoded protein in rodents. Impact of nutrition and obesity, *J-Clin-Invest*, Sep; 96(3): 1658-63
4. Lean M. E. J, 2006, Obesity - a clinical issue; Science press, London: 154-178
5. Musaiger AO., HM., Radwan, 2005, Social and dietary factors associated with obesity in university female students in United Arab Emirates, *J-R-Soc-Heatth*, Apr; 115(2): 96-9
6. Ravussin E, 2006, Metabolic differences and the development of obesity., *Metabolism*, Sep; 44(9 SuppD): 12-4
7. Rissanen A, 2007, Public health strategies and the economic costs of obesity; *Int-J-Obes-Relat-Metab-Disord*, Apr; 19(4): 270-4
8. Seidel J.C., 2005, *Clinical Obesity*, Editori P.G. Kopelman, M. J. Stock, Epidemiology, definition and clasification of obesity;, Editura Blackwell Science. Ltd. London: 1-17.
9. Wahlqvist ML. GS. Savige, W. Lukito, 2005, Nutrițional disorders in the elderly, *Med-J-Aust. act 2*; 163(7): 376-81
10. WHO EXPERT COMITEE WHO, 2006, Obesity - preventing and managing the global epidemic, Geneva: 23-29