

Pathology and Treatments of Obesity

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Abstract

Obesity is prevalence globally. About 35-36% adults in the US are suffered with obesity. Many types of therapeutic/management measures have been developed for this symptom. Body-weight loss often fails after discontinuation of life-style and therapeutic efforts. This article tries to shed new light on obese pathology and treatment study.

Keywords: Obesity; Diabetes; Endocrinology

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Background

Obesity is an undesired phenotype/symptom that causes a lot troubles obese people [1-3]. However, it is difficult to be remedied by existing management measures and resources via shortage of pathological and therapeutic knowledge globally. Many types of therapeutic/management measures have been developed for this symptom-some of these measures are even very expensive (surgery) or harmful for the sufferers (dietary control or increase of nutrition excretion) [1-3]. Usually, body-weight loss effort fails after discontinuation of therapies.

Global Situation

Between 1/4 to 1/3 of global adult population is obesity (body mass index > 30 Kg/m) [4]. The co-morbidity of obese persons with many other diseases, such as depression, diabetes, cardiovascular risks and so on is very troublesome in the clinic [2-12]. In addition, obese youngsters often meet with some kinds of other embarrassment such as episode of romance failures in blind-date, difficult to find decent jobs and lower possibility of position promotion [2-4]. From these obese sufferers, losing weight is their first choice and addictive with. This editorial will outline pathological and therapeutic information we know about.

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Generally speaking, purposed weight loss is a great pain and agonizing. Only small proportion of obese people can success in the clinic. Many people, especially personal practice regain their weight after therapeutic discontinuation. As a result, most obese people struggle with this problem in a long-term. To solve with this therapeutic weak point, pathological or therapeutic study and knowledge accumulation is the key.

Etio-Pathologic Knowledge

Human obesity is caused by a lot of different environmental or morbidity factors-including;

1. Overfeed
2. Energy disturbance
3. Pathologic factorials
4. Sedentary (less physical exercises)
5. Gastro-intestinal abnormal
6. Psychiatric burden
7. Behavior (alcoholic and laziness)
8. Chemical or drug-induced
9. Tumor-induced
10. Physiological change (neural-appetite axis)
11. Inheritance (genetic/epigenetic)
12. Hormonal or blood glucose level escalations [2,3]

Major Counteractive Measures

1. Diet-control
2. Consumption of more fresh fruits, vegetable and seafood
3. Life-style adjustments (exercises, Yoga, athletics, ball-games and meditation)
4. Surgery (gastric bariatric surgery)
5. Chemical drugs
6. Biotherapy
7. Psychiatric intervention
8. Therapeutic combinations [13-17]

Future Directions

Obese therapeutics and managements should target on human inflammatory homeostasis, etio-pathological pathways and energy disturbance/imbalance-including life-style adjustments, energy homeostasis and lipo-dystrophy. Without these targeted therapeutics, clinical obese therapy will not be able to completely reliance, cheap and less toxicity to diseased people. This is the ultimate goal of pharmaceutical company and clinical doctors.

Genomic study of obesity might bring us many new insights into this chronic phenotype/symptom [1-3, 18-20]. Along with the advance of other diseases, the patho-therapeutic knowledge of obesity might be improved by this genomic approach in the future.

Therapeutic combinations are also very useful for obese patients. These kinds of therapeutic paradigms are very useful for many other diseases [21-24]. Similar work in this regard (large-scale in vitro and in vivo experimental study) is inevitable in the future.

Natural chemotherapeutic agents or drugs might be more effective against obese onset, metabolic syndrome and progresses [25-27]. Today, many chemical or herbal drugs are the main sources of obese control and treatments. Certainly, life-style adjustments are well assistance to these natural drugs and many other therapeutic targets, such as leptin, insulin and many others.

Conclusion

Many therapeutics can help us to manage overweight and even obesity in the clinic. However, there is a long way to go for completely managing all obese people. We need to promote these researches in the near future. Look forward to new generation of medical breakthroughs for obese control and managements.

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