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Editorial

Human Obesity Therapeutics, Modern Diagnosis and Biomarkers

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Abstract

Obesity is a prevalence metabolic phenotype caused by abnormal metabolic homeostasis and gene-environmental interactions. A small proportion of obesity persons are ineffective by lifestyle and current therapeutics. Genetic and molecular basis of disease diagnosis is required to improve targeted therapy against genetic/molecular abnormality in humans.

Keywords: *Obesity; Endocrinology; Human Genome; Inflammatory Factors; Neural Disorder; Mental Disorder; Obese Treatment; Metabolic Disease*

Backgrounds

Obesity is a prevalence metabolic and physiological disorder (30 - 35% in common adult worldwide) caused by a sequence of host-environmental interactions [1-6]. Many types of preventive and therapeutic options have been widely sought after. However, most of these medications (life-style-food limitation or high-load of human exercise)-energy imbalance and glucose homeostasis disorder strategies are not always work [7], a number of genetic/molecular exploration should be emphasized in the future.

New therapeutic convention

Different types of counteractive measures are suitable for different individuals. Apart from life-style and energy limitation, cellular and molecular etiologic/pathological mechanism study may be other ways for obese therapeutics in patients resistance to energy control. Following pathways may be new initiatives for obese therapeutics:

- Pathologic factorials (endocrinological factors)-leptin, thyroxine, insulin and many other hormonal dysfunction
- Brain-visual-appetite axis (hypothalamic)
- Psychiatric burden and disorder
- Drug-induced (hormonal drugs, antibiotics or other drugs associated with human liver dysfunction)
- Inflammatory factors (TNF secretion)
- Tumor-induced (pituitary tumors and others)
- Physiological change (adipose cells or tissues)
- Genetic alleles and loci (loss-of-function or copy number changes of key genes and molecules) [8-21].

Future Directions

To achieve targeted therapeutics for genetic/molecular abnormality, individual therapies and new drug development may be important [22]. Combinations (drugs plus life-style) are widely recommended for obese patients, which are very useful for many other chronic diseases, such as HIV/AIDS and neoplasm metastasis [23-28]. Nonetheless, these therapeutic systems are usually based on doctor's experience rather than scientific-supportive formats. Therapeutic paradigms for genetic/molecular abnormality needs modern diagnosis [29-37] and personalized medicine [38-41]. To achieve better obesity treatments, new drug development is also very useful [42-45].

Conclusion

Human obesity is a strong risk factor for human morbidity and mortality. Modern genetic/molecular diagnosis in the clinic is indispensable. After these genetic/molecular study, all obese people can be fully controlled.

Conflict of Interests

None.

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