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EC DIABETES AND METABOLIC RESEARCH

Mini Review

Obese Treatments, New Ideas and Avenues

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Abstract

Obesity is an annoying metabolic phenotype that is attributed to a number of different patho-physiological risk factors. For obese people, life-style management, drugs and surgery are the major selections for recovering their healthy forms. Since a great diversity of risk factors can trigger human features of obesity, personalized medicine (biomarkers and genetic alteration) or others are one of future obesity treatments. This article briefly reviews these pathologic or therapeutic insights.

Keywords: *Obesity; Endocrinology; Human Genome; Inflammatory Factors; Mental Disorder; Metabolic Disorders*

Backgrounds

Human obesity is an unwelcoming metabolic and physiological condition initiated by different forms of host-environmental risk factorial interaction, dissociation or imbalance [1-6]. For most obese people, suitable exercise and food limitation is the major options for adjusting their image and health. However, a small proportion of obesity persons are ineffective by these lifestyle efforts [7,8]. In these special types of clinical characteristics, in depth scientific exploration and challenges should be made.

Medical characters

Currently, obesity control other than life-style efforts is also complicate. Different etiological or pathological factors and disciplines are attributed in table 1. Despite belonging to different domains, several of them are unique pathogenic and therapeutic options (disciplines versus molecular pathways) in order to reverse patient's health conditions (Table 1).

Disciplines	Molecules and pathways
Biochemical	Biologically active substance
Nutrition	Calculation of energy and calorie
Social	Communication skills and frequency
Physiology	Vitality and function
Pathology	Genetics and hormone
Psychiatry	Depression and cognitive impair
Pharmacology	Drug develop and application
Surgery	Gastric and tumor
Metabolic	Different types of hormone
Nursery	Physical or spiritual

Table 1: *Different medical disciplines associated with human obesity [8].*

Pathological features

Many pathological characters must be further investigated and clinical validation [8-24]. A great variety of patho-physiological molecules and pathways may participate in healthy or morbidity subjects:

- Endocrinological abnormal and imbalance (molecules and pathways)
- Neuropsychiatric symptoms and pathways (mood or cognitive disables)
- Pathophysiological molecules, mechanisms and pathways
- Inflammatory-related pathways (growth factors, hormones and viral)
- Immune-related pathways (cytokine, interleukin and lymphocytes)
- Co-morbidity (type 2 diabetes, cardiovascular and inheritable)
- Human genomic vulnerability and family.

Among a variety of potential factors for human obesity, each of conventional therapies or food limitation may be low-efficacy and off-targets. Thus, excellent pharmacological study is indispensable.

Pharmacological challenge

Table 2 shows important areas for obesity treatment studies. Pharmacological knowledge and drug development for human obesity is quite demanding. Now, many experimental animal models are utilized in labs. To achieve targeted therapeutics for genetic/molecular abnormality, clinical treatments and new drug development may be important [24-26]. Drug combination is one of the leading therapeutic miracles clinically. However, foundational study of drug combination needs elaborative efforts [27-29]. Combinations (drugs plus life-style) are widely recommended for obese patients [30-33]. Genetic/molecular abnormality s drug targets needs to be evaluated by modern approaches [34-38].

Disciplines	Pathways
Drug development	Mechanisms, targets and structure
Herbal medicine	Herbal selection and phyto-chemistry
Drug combination	Different possibility as complete as possible
Pharmaceutical	Increasing drug absorption and distribution (nano-particles)

Table 2: *Pharmacological challenge for future obese treatment study.*

Clinical trials

Personalized medicine (PM) may be more effective in order to target different types of human population, especially for cancer patients [39-42]. Given the possibility of PM in different metabolic disease treatment [24-26], these therapeutic strategies may be widely used lately. To achieve better obesity treatments, new drug development and herbal medicine is also very useful in metabolic diseases [37,38]. Future approaches should be emphasized.

Nursery

Patient treatment and recovery needs high-quality nursery service and supports [43-47]. Different types of nursery progress may more or less help a lot for health and human obesity in various medical disciplines.

Conclusion

Human obesity is associated with a lot of different risk-factors. Apart from life-style adjustment, drug and other therapies are also useful. To well accomplish different kinds of therapeutic efforts, biomedical study is indispensable. After some genetic or molecular investigation, all obese people can be treated.

Conflict of Interests

None.

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