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A REVIEW ARTICLE ON OBESITY CONTROL

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Abstract

Obesity is a dynamic interplay between genetic and environmental influences and is related to substantial morbidity and mortality. There are some adverse health effects, such as metabolic syndrome, cardiovascular disease, diabetes, cancers, high blood pressure, that are related to obesity. Cumulative metabolic and physical discomfort are the product of these health effects associated with obesity. An unusually high volume of body fat or adipose tissue is often characterized by obesity. Abnormal changes in obesity are experienced by secretory factors/adipokines released from these adipose tissues and thus induce a number of inflammatory conditions. Inherited genetic variation is an important risk factor for obesity, and understanding obesity genetics can increasingly benefit individual patients in the development of medications and improved drug targeting. This paper reviews factors that lead to obesity, analyses obesity, and highlights the need to consider its prevalence. Topics related to treatment and the advancement of appropriate drug methods are also discussed.

Keywords: *BMI, Fat, Genetic, Obesity, Tissues.*

I. INTRODUCTION

Obesity is associated with many metabolic disorders, so the progression of obesity can lead to changes in metabolic and hormonal factors, which can lead to excess energy being retained in various ways in the human body. In Asian Indians, BMI is not known to be a reasonable estimate of obesity as they have a characteristic phenotype of obesity, with a comparatively lower BMI but with central obesity. Fat distributed in the abdominal area, especially visceral fat, has been suggested to be more metabolically essential than other fat depots[1], [2].

Therefore, abdominal adiposity measured using waist circumference is considered more acceptable than generalized adiposity assessed by BMI22 to predict metabolic disorders. The

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inflammatory response that occurs in the presence of obesity is that it tends to be activated primarily in adipose tissue along with other metabolically critical sites that may also be involved in any metabolic diseases[3], [4]. A wide variety of protein groups, as well as fatty acids and prostaglandins, have been documented to be secreted by adipose tissue[5], [6].

Table 1: Illustrates the obesity causes and its management.

Obesity	
Causes	**Management**
Sedentary life style	Physical activity
Food availability	Diet control
High fat diet	Behavioural therapy
Hereditary	Medication
Drug induced weight gain	Surgery

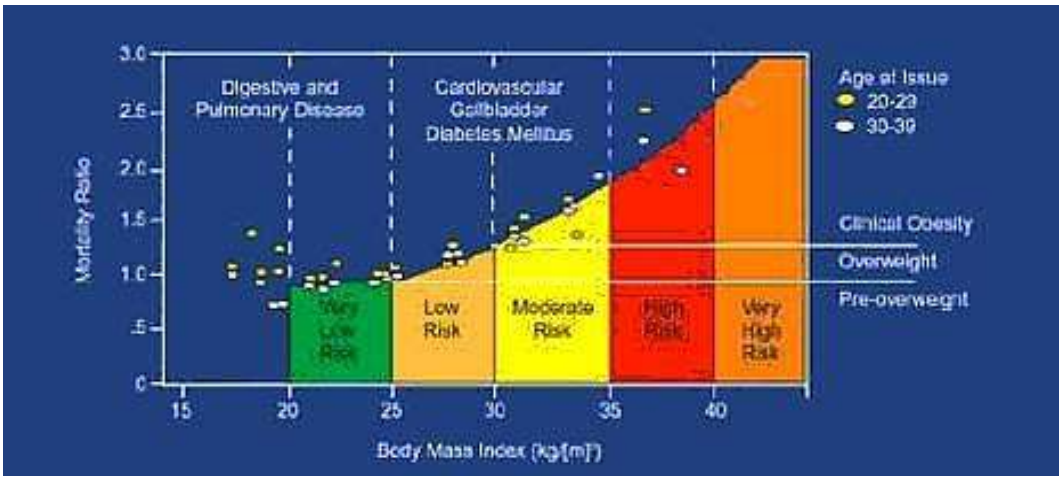

Fig. 1 Illustrates the increased BMI.

Table 2: Illustrates the drugs in diverse phases.

Drugs in phase II trials	Drugs in phase III trials
Bupropion (dopamine reuptake inhibitor)	Mazindol (adrenergic agonist)
Linitript (cholecystokinin A antagonist)	Sertraline (selective serotonin uptake inhibitor)
Pegylated leptin	Posatirelin (thyrotrphin-releasing hormone analogue)
Dipeptidyl peptidase IV inhibitors	Cannabinoid antagonists
Human growth hormone factor AOD9604	Lipase inhibitor, ATL-962
Phytostanol	

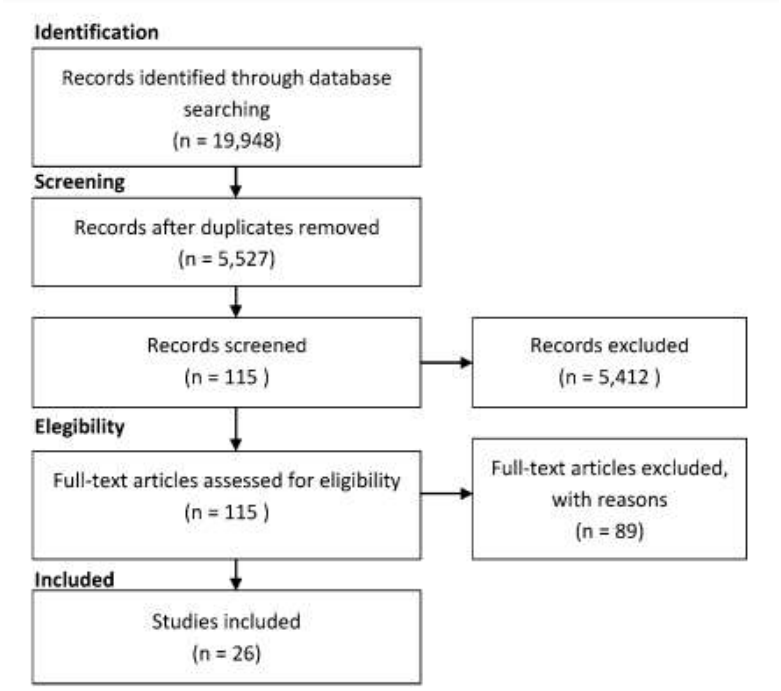

Fig. 2 Illustrates the flow diagram of the included studies.

II. DISCUSSION

These secreted factors play a role in adipocyte differentiation, vascular and blood flow control, lipid and cholesterol metabolism, and immune system function regulation and regulation of fat mass regulation[7], [8]. These variables are secreted not only by mature fat cells, but also by poorly defined cells present in the stromal vascular fraction, including macrophages present in adipose tissue extracellular matrix. Figure 1 illustrates the increased BMI. Table 1 illustrates the obesity causes and its management. Table 2 illustrates the drugs in diverse phases. Table 3 shows the rare monogenic forms of obesity. Figure 1 illustrates the increased BMI. Figure 2 illustrates the flow diagram of the included studies.

Table 3: Shows the rare monogenic forms of obesity

Mutation type	Obesity	Associated phenotype
Homozygous mutation.	Severe, from the first days of life.	Gonadotropic and thyrotropic insufficiency.
Homozygous mutation.	Severe, from the first days of life.	Gonadotropic, thyrotropic and somatotropic insufficiency.
Homozygous or compound heterozygous	Severe, from the first month of life.	ACTH insufficiency, mild hypothyroidie and ginger hair if the mutation leads to the absence of POMC production.
Translocation between chromosomes 1p22.1 and 6q16.2 in the SIM1 gene.	Severe obesity occurring in childhood.	------
De novo heterozygous Mutation.	Severe from the first months of life.	Developmental delay, behavioral disturbance, blunted response to pain.
Recessive.	Severe, from the first month of life.	Gonadotropic and corticotropic insufficiency, Hyperproinsulinemia and Other dysfunction of gut peptides.
Dominant.	Early onset, variable severity, large size.	No other phenotype.

By unmasking genetic or metabolic vulnerability, these variables play a critical role in the development of obesity. Environmental effects function with no physical activity through a rise in energy consumption or a reduction in energy expenditure, because there is an increased risk of being obese. The risk of obesity also contributes to sedentary behaviors, particularly television watching, car ownership. In raising the risk of obesity, the role of passive over consumption, eating disorders, and preference for a high carbohydrate diet also play an important role. Other food habits, such as smoking and alcohol intake, decrease body weight and contribute to higher BMI. Drug therapy is indicated only for subjects with a BMI > 27 and related risk factors, or with a BMI > 30, who are at medical risk due to obesity. For 'cosmetic' weight loss, it should not be used. Medications for weight loss can only be used as an adjunct to food and exercise programs combined with a behavioral treatment and nutritional therapy program.

III. CONCLUSION

This research is not definitive on the most successful treatment in adolescents for obesity. Changes in eating patterns and the regular inclusion of exercise, however, are important aspects of successful strategies aimed at adolescents for weight loss. It is usually necessary to provide

psychological counseling to make improvements in eating and exercise patterns. CBT and positive approaches are the most widely used forms of counseling. The support of the family in the care and use of technology also seems to increase commitment to a balanced lifestyle designed to ensure weight loss in adolescents who are overweight and obese.

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