International Journal of Biomedical and Clinical Sciences
Vol. 2, No. 2, 2017, pp. 17-21
http://www.aiscience.org/journal/ijbcs

Progressing to Morbid Obesity, What Works out, Life Style, Pathology, or Compliance to Management Protocol, Qualitative Approach, a Case Study

Hamid Yahay Hussain*

Primary Health Care, Dubai Health Authority, Dubai, UAE

Abstract

Obesity has become one of the most important public health problems in the United States and many other resource-rich countries and transitional economies. Objectives: To study the progressive weight gain profile for the case presented by current study. To study potential associated factors Methodology: A girl of (10.2) years school in Dubai has been followed up for 5 years since age of (5.5) years old by WHO growth chart monitoring BMI percentile and Z score, BMI percentiles also can be determined for boys and for girls As children approach adulthood, the 85th and 95th percentiles for BMI are approximately 25 and 30 kg/m^2, the thresholds for overweight and obesity in adults, respectively. The cut off point for obesity diagnosis is > 95 percentile, case interview, family interview has carried out many times, weight management protocol of many trails throughout the 5 years of follow up. operational definition of morbid obesity has been followed according to, comprehensive medical examinations has been carried out for the case, biomedical screening tests, social counseling sessions, peer effect trials and sustainable environment of motivations. Results: The study revealed that the girl experienced the following finding at the age of (5.5) year old, 117.6 Cm high, 27.8Kg weigh BMI 98% and Z score 2-46. While the case of the girl reflect 125.0 Cm height, 34.3%Kg weight, 98% BMI and 2.46 Z score at age of 6.3 years old. Yet at the age of (7.5) years old her height was 132.3 CM, weight 46.8 Kg, BMI% was 99.4% and Z score was 2.56. At age of (8.4) years old the girl eve loved to 140.0cm high, 58.2 kg weight, and 99.5% BMI and 2.59 Z score. When she reached age of (9.4) years old she showed 147.1 CM height, 70.1 KG weight 99.5% BMI%and2.62 Z score. the most recent follow up for the girl at age of (10.2) reflected 152.0 CM height, 75Kg body weight, 99.5% BMI% and 2.55 Z. the time trend of weight gain is steadily increasing over the last five years in spite of increasing in the height as well and still reflected as an extensive obesity on BMI% parameter starting from 98% BMI at age of (5.5) years old to 99.5% at the age of (10.2) years old.

Keywords

Morbid Obesity, Life Style, Pathology, Management Protocol

Received: October 12, 2017 / Accepted: November 2, 2017 / Published online: December 21, 2017

1. Introduction

Obesity has become one of the most important public health problems in the United States and many other resource-rich countries and transitional economies [1-3]. As the prevalence of obesity increased, so did the prevalence of the co morbidities associated with obesity [3]. For this reason, it is imperative that health care providers identify overweight and obese children so that counseling and treatment can be provided. Just like adults, obese kids can develop chronic conditions such as heart disease and some cancers. Their obese status is likely to be maintained into adulthood, and they may be afflicted with type-2 diabetes, arthritis and sleep apnea at very young ages. Obesity can severely affect the

* Corresponding author
E-mail address: hussainh569@gmail.com

self-esteem of teens and children. The healthy BMI range varies with the age and sex of the child. Obesity in children and adolescents is defined as a BMI greater than the 95th percentile. [4] The reference data that these percentiles are based on is from long time back applications and thus has not been affected by the recent increases in rates of obesity. [5]

Childhood obesity has reached epidemic proportions in 21st century with rising rates in both the developed and developing world. Rates of obesity in Canadian boys have increased from 11% in 1980s to over 30% in 1990s, while during this same time period rates increased from 4 to 14% in Brazilian children. [6] As with obesity in adults many different factors contribute to the rising rates of childhood obesity. Changing diet and decreasing physical activity are believed to be the two most important in causing the recent increase in the rate of obesity. Activities from self-propelled transport, to school physical education, and organized sports has been declining in many countries. [7] Because childhood obesity often persists into adulthood, and is associated with numerous chronic illnesses, it is important that children who are obese be tested for hypertension, diabetes, hyperlipidemia, and fatty liver. [8] Treatments used in children are primarily lifestyle interventions and behavioral techniques. Medications are not FDA approved for use in this age group. [9] Being morbidly obese puts you at even greater risk for developing the conditions associated with carrying too much body fat, including gallstones, sleep apnea, gastro esophageal reflux disease, arthritis, heart disease, cancer and type-2 diabetes. In cases of morbid obesity, weight reduction is critical to prevent early death. Severe obesity in the United States, Australia, and Canada is increasing faster than the overall rate of obesity. [9, 10]

The current study is aiming to understand in depth the impact of family social context of fat home atmosphere, noncompliance to management protocol and loss of motivation for improvement as majors steering to morbid obesity case resistant and case worsening and trying to find answer to the question of how to achieve significant success in morbid obesity case management.

2. Objectives

To study the weight gain profile. To study associated factors

3. Methodology

A girl of (10.2) years age attending private school in Dubai has been followed up for 5 years since age of (5.5) years old by WHO growth chart monitoring BMI percentile and Z score, BMI percentiles also can be determined for boys and for girls As children approach adulthood, the 85th and 95th percentiles for BMI are approximately 25 and 30 kg/m^2, the thresholds for overweight and obesity in adults, respectively [11]. The cut off point for obesity diagnosis is > 95 percentile (Determination of obesity or morbid obesity in a teen or child depends on BMI and age-appropriate growth-rate charts), case interview, family interview has carried out many times, and the case has been enrolled in weight management protocol of many trails throughout the 5 years of follow up. operational definition of morbid obesity has been followed according to, comprehensive medical examinations has been carried out for the case, biomedical screening tests, social counseling sessions, peer effect trials and sustainable environment of motivations. Operational definition of variables has been applied for morbid obesity, qualitative approach through in depth case study and long term interviews has been followed.

4. Results

The study revealed that the girl experienced the following finding at the age of (5.5) year old, 117.6 Cm high, 27.8Kg weigh BMI 98% and Z score 2-46. While the case of the girl reflect 125.0 Cm height, 34.3%Kg weight, 98% BMI and 2.46 Z score at age of 6.3 years old. Yet at the age of (7.5) years old her height was 132.3 CM, weight 46.8 Kg, BMI% was99.4% and Z score was 2.56. At age of (8.4) years old the girl eve loved to 140.0cm high, 58.2 kg weight, and 99.5% BMI and 2.59 Z score. When she reached age of (9.4) years old she showed 147.1 CM height, 70.1 KG weight 99.5% BMI% and 2.62 Z score. the most recent follow up for the girl at age of (10.2) reflected 152.0 CM height, 75Kg body weight, 99.5% BMI% and 2.55 Z score as appear in the table 1. Figure 2 showed that the time trend of weight gain is steadily increasing over the last five years in spite of increasing in the height as well and stll reflected as an extensive obesity on BMI% parameter starting from 98% BMI at age of (5.5) years old to 99.5% at the age of (10.2) years all.

Table 1. Case progress according to different variables over period of time.

Date of Examination	Age	Height	Weight	BMI%	Z score
30.1.13	5.5	117.6	27.8	98%	2.46
26.11.13	6.3	125.0	34.2	98%	2.46
12.1.15	7.5	132.3	46.8	99.4%	2.56
10.12.15	8.4	140.0	58.2	99.5%	2.59
13.12.16	9.4	147.1	70.1	99.5%	2.62
26.9.17	10.2	152.0	75.5	99.5%	2.55

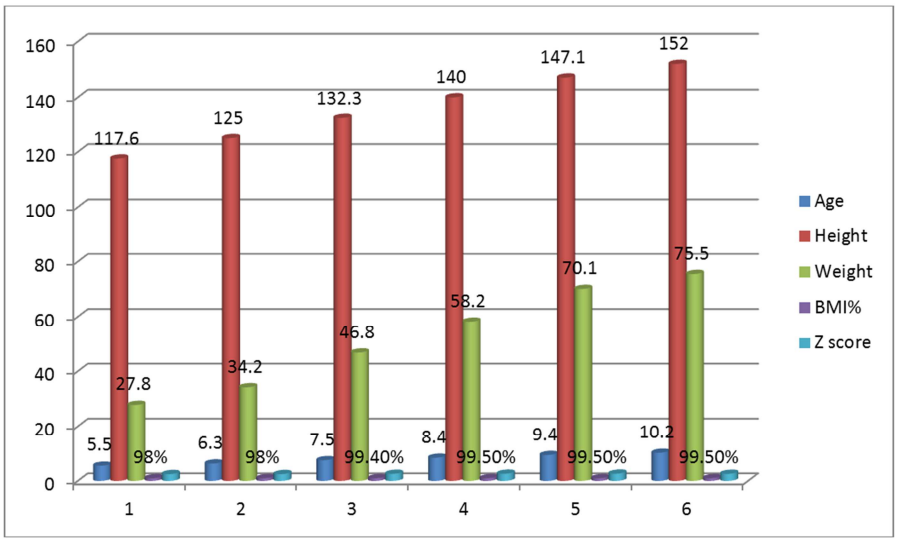

Figure 1. Age, weight, high, Z score and BMI % progress of the case over 5 years.

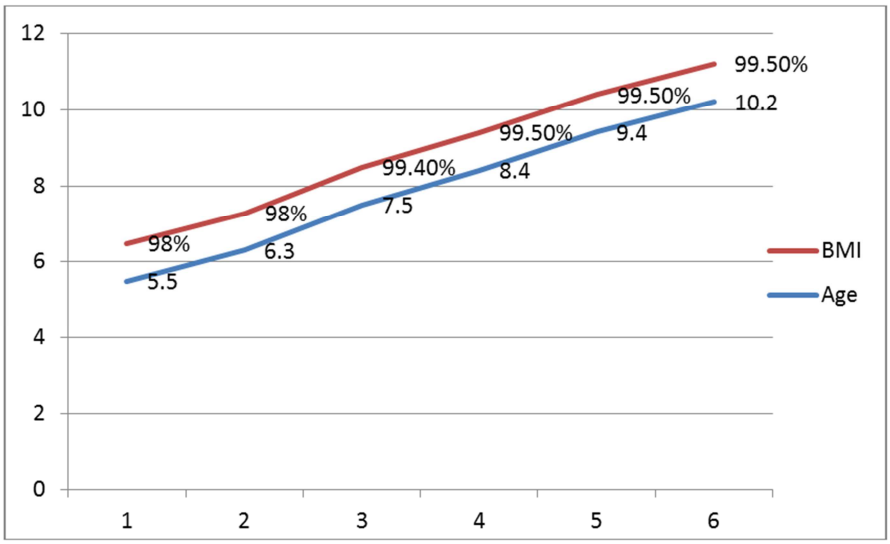

Figure 2. time trend of case progressing to morbid obesity.

5. Discussions

The sequence of event reflected by the case showed fast progressing to morbid obesity status, the girl weight kept steadily increasing over the last five years to the triple amount, attempts of effective has been initiated many times, all end with discontinue, disruption and failure, social support for the case was not adequate and the girl was never prepared to take the responsibility on her own, the fragmentation of the efforts, the absence of comprehensive and integrated approach, the lack of motivation, and unclear role and support of sounding environment was the major gap in case handing and effective approaching. Similar interpretation has been reflected in some other studies on the role of different factors. While genetic influences are important to understanding obesity, they cannot explain the current dramatic increase seen within specific countries or globally. [12] Though it is accepted that energy consumption in excess of energy expenditure leads to obesity on an individual basis, the cause of the shifts in these two factors on the societal scale is much debated. There are a number of theories as to the cause but most believe it is a combination of various factors. The correlation between social class and BMI varies globally. In the developing world, women, men, and children from high social classes had greater rates of obesity. [13] An update of this review carried out in 2007 found the same relationships, but they were weaker. The decrease in strength of correlation was felt to be due to the effects of globalization. [14] Percentage of teenage children who are overweight, are correlated with income inequality. A similar relationship is seen among US states: more adults, even in higher social classes, are obese in more unequal states. [15] many explanations have been put forth for associations between BMI and social class. It is thought that

in developed countries, the wealthy are able to afford more nutritious food, they are under greater social pressure to remain slim, and have more opportunities along with greater expectations for physical fitness. In undeveloped countries the ability to afford food, high energy expenditure with physical labor, and cultural values favoring a larger body size are believed to contribute to the observed patterns. Attitudes toward body weight held by people in one's life may also play a role in obesity. A correlation in BMI changes over time has been found among friends, siblings, and spouses [16] Stress and perceived low social status appear to increase risk of obesity. In the developing world urbanization is playing a role in increasing rate of obesity. In China overall rates of obesity are below 5%; however, in some cities rates of obesity are greater than 20%. [17] Malnutrition in early life is believed to play a role in the rising rates of obesity in the developing world. [18] Endocrine changes that occur during periods of malnutrition may promote the storage of fat once more food energy becomes available [19] Consistent with cognitive epidemiological data, numerous studies confirm that obesity is associated with cognitive deficits. [20] Whether obesity causes cognitive deficits, or vice versa is unclear at present.

6. Conclusion

The case showed triple times increase in body weight in 5 years as an outcome to failure of intervention**.** The case study concluded energy consumption in excess of energy expenditure is the majors attribute to obesity, which all can be explained on the base of sedentary life, eating habits and social context of the surrounding atmosphere (Including family role, Goal setting, incentivized approach, and metal preparedness to create change).

Recommendations

Comprehensive multi approach weight management protocol requested to be developed and operating at morbid and resistant cases. Better understanding of social context of home atmosphere and mental preparedness to create change.

Ethical Issues

Ethical consideration has been followed according to golden standards.

Conflict of Interest

The authors declare that they have no competing interests.

References

[1] Strauss RS, Pollack HA. Epidemic increase in childhood overweight, 1986-1998. JAMA 2001; 286:2845.

[2] Ogden CL, Carroll MD, Lawman HG, et al. Trends in Obesity Prevalence among Children and Adolescents in the United States, 1988-1994 through 2013-2014. JAMA 2016; 315:2292.

[3] GBD 2015 Obesity Collaborators, Afshin A, Forouzanfar MH, et al. Health Effects of Overweight and Obesity in 195 Countries over 25 Years. N Engl J Med 2017; 377:13.

[4] "Healthy Weight: Assessing Your Weight: BMI: About BMI for Children and Teens". Center for disease control and prevention. Retrieved April 6, 2009.

[5] Jump up ^ Flegal KM, Ogden CL, Wei R, Kuczmarski RL, Johnson CL (June 2001). "Prevalence of overweight in US children: comparison of US growth charts from the Centers for Disease Control and Prevention with other reference values for body mass index". Am. J. Clin. Nutr. 73 (6): 1086–93. PMID 11382664.

[6] Jump up to: [a] [b] Flynn MA, McNeil DA, Maloff B, et al. (February 2006). "Reducing obesity and related chronic disease risk in children and youth: a synthesis of evidence with 'best practice' recommendations". Obes Rev. 7 Suppl 1: 7–66. PMID 16371076. Doi:10.1111/j.1467-789X.2006.00242.x.

[7] Jump up ^ Dollman J, Norton K, Norton L (December 2005). "Evidence for secular trends in children's physical activity behaviour". Br J Sports Med. 39 (12): 892–7; discussion 897. PMC 1725088 . PMID 16306494. Doi:10.1136/bjsm.2004.016675.

[8] Jump up ^ Fennoy I (October 1, 2008). "Childhood Obesity, Part 1: Weight Evaluation and Comorbidity Screening". Consultant for Pediatricians.

[9] Howard NJ, Taylor AW, Gill TK, Chittleborough CR (2008). "Severe obesity: Investigating the socio-demographics within the extremes of body mass index". Obesity Research & Clinical Practice. 2 (1): I–II. PMID 24351678. Doi:10.1016/j.orcp.2008.01.001.

[10] Jump up ^ Tjepkema M (2005-07-06). "Measured Obesity–Adult obesity in Canada: Measured height and weight". Nutrition: Findings from the Canadian Community Health Survey. Ottawa, Ontario: Statistics Canada.

[11] Baker S, Barlow S, Cochran W, et al. Overweight children and adolescents: a clinical report of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition. J Pediatr Gastroenterol Nutr 2005; 40:533.

[12] Yach D, Stuckler D, Brownell KD (January 2006). "Epidemiologic and economic consequences of the global epidemics of obesity and diabetes". Nat. Med. 12 (1): 62–6. PMID 16397571. doi:10.1038/nm0106-62.

[13] Jump up ^ Sobal J, Stunkard AJ (March 1989). "Socioeconomic status and obesity: A review of the literature". Psychol Bull (Review). 105 (2): 260–75. PMID 2648443. doi:10.1037/0033-2909.105.2.260.

[14] Jump up to: [a] [b] McLaren L (2007). "Socioeconomic status and obesity". Epidemiol Rev (Review). 29: 29–48. PMID 17478442. doi:10.1093/epirev/mxm001.

[15] Jump up to: [a] [b] Wilkinson, Richard; Pickett, Kate (2009). The Spirit Level: Why More Equal Societies Almost Always Do Better. London: Allen Lane. pp. 91–101. ISBN 978-1-84614-039-6. Jump up ^ Christakis NA, Fowler JH (2007). "The Spread of Obesity in a Large Social Network over 32 Years". New England Journal of Medicine (Research Support). 357 (4): 370–379. PMID 17652652. Doi:10.1056/NEJMsa066082.

[16] Jump up ^ Björntorp P (2001). "Do stress reactions cause abdominal obesity and comorbidities?". Obesity Reviews. 2 (2): 73–86. PMID 12119665. doi:10.1046/j.1467-789x.2001.00027.x.

[17] Jump up ^ Goodman E, Adler NE, Daniels SR, Morrison JA, Slap GB, Dolan LM (2003). "Impact of objective and subjective social status on obesity in a biracial cohort of adolescents". Obesity Reviews (Research Support). 11 (8): 1018–26. PMID 12917508. doi:10.1038/oby.2003.140.

[18] Jump up ^ "Obesity and Overweight" (PDF). World Health Organization. Retrieved February 22, 2009.

[19] Jump up to: [a] [b] Caballero B (March 2001). "Introduction. Symposium: Obesity in developing countries: biological and ecological factors". J. Nutr. (Review). 131 (3): 866S–870S. PMID 11238776.

[20] Jump up ^ Smith E, Hay P, Campbell L, Trollor JN (2011). "A review of the association between obesity and cognitive function across the lifespan: implications for novel approaches to prevention and treatment". Obesity Reviews (Review). 12 (9): 740–755. PMID 21991597. doi:10.1111/j.1467-789X.2011.00920.