

**LETTERS TO THE EDITOR**

**Obesity in the north of Iran (South-East of the Caspian Sea)**

Obesity increases the likelihood of various diseases, particularly heart disease, breathing difficulties during sleep, type 2 diabetes, several cancers, and osteoarthritis and it was increasing rapidly all over the world<sup>1</sup>. The Third National Surveillance of Risk Factors of Non-communicable Disease in Iran reported the prevalence of obesity up to 22.3% and it was more in female and urban residents<sup>2</sup>. Golestan province is located in the north of Iran (south east of Caspian sea) and of 1,600,000 populations in this area, 66.39% are 15-64 years old, whereas 43.9% and 56.1% are living in urban and rural area, respectively. Most of people in villages are farmer. Different ethnic groups such as Fars (native), Turkman and Sistani are living in this region.

With regards has not been done a comprehensive study about obesity in this area, this study established for determine of obesity status among 15-65 aged in the Iranian northern people.

This study conducted in 2495 subjects (male=1247 and female=1248) that chosen by cluster and stratify sampling based on age and sex proportion among the Iranian northern adult people in 2006. Interviewers recorded the data using the multidimensional questionnaire and anthropometrics indexes. BMI was classified as overweight, a BMI 30.0 to 39.9 kg/m<sup>2</sup> was classified as obesity and BMI of 40 kg/m<sup>2</sup> or more was classified as pathologic obese.

The values of BMI (Mean±SD) were 25.31±5.0 and 27.54±6.4 kg/m<sup>2</sup> in men and women and 27.22±5.7 and 25.72±5.9 in urban and rural area, respectively (Table I). The prevalence of overweight, obesity and pathologic obesity were 30.34%, 22.48% and 1.76%, in that order. Although, the prevalence of

obesity was significantly more in women than men (P=0.001), but the prevalence of overweight has inversely related to the gender (P=0.013). The prevalence of obesity and overweight were markedly more in urban area than in rural area (P=0.001) (Table II).

**Table I:** The mean and standard deviation of BMI (Kg/m<sup>2</sup>) in Iranian northern adult people

Characteristics		N	Mean ±SD	T. Test Pv
Urban	Men	580	26.11±4.88	0.001
	Women	581	28.33±6.27	
Rural	Men	667	24.60±4.97	0.001
	Women	667	26.84±6.44	
Urban		1161	27.22±5.7	0.001
Rural		1334	25.72±5.9	

The prevalence of obesity and overweight reported in Iran<sup>3</sup> 18.1% and 32.0%, respectively. In another study<sup>4</sup>, overweight, obesity and pathologic obesity have been shown 28.6%, 10.8% and 3.4% of in adult people. The prevalence and pattern of obesity vary substantially from a nation to a nation, and its current prevalence (BMI ≥30 kg/m<sup>2</sup>) ranges from as low as ≤ 5% in China, Japan, and African nations to as high as ≥75% in urban Samoa. However, even in relatively low-prevalence countries, such as China, rates are almost 20% in some cities<sup>5</sup>. Obesity reported 23.5% in the USA<sup>6</sup> and 32.8% in Brazilian<sup>7</sup>. In the present study, the prevalence of obesity and overweight was not markedly different with the other part of Iran, and in some other countries.

More prevalence of obesity in women than men<sup>4,8</sup> and in urban area than rural area<sup>2,3</sup> has been shown in some studies. In the developing countries, migration started from rural to urban areas, and it led to lifestyle changes in recent decades. This situation subsequently increased the obesity rate<sup>9,10</sup>. On the other hand, changes of lifestyles may cause low physical and occupational activities in urban compared with rural population. Iran is governed by Islam and outdoor physical activity of women is low for religious reasons.

**Table II:** The distribution of BMI criteria in Iranian northern adult people

Characteristics		BMI					Chi-2 PV
		<18.5	18.5-24.9	25-29.9	30-39.9	40≤	
Urban	Men	20(3.5)	233(40.5)	202(35.1)	116(20.2)	4(0.7)	0.001
	Women	19(3.3)	164(28.7)	168(29.4)	197(34.4)	24(4.2)	
Rural	Men	44(6.7)	335(50.7)	205(31.0)	74(11.2)	3(0.5)	0.001
	Women	35(5.4)	249(38.1)	182(27.9)	174(26.6)	13(2.0)	
Urban		39(3.4)	397(34.6)	370(32.3)	313(27.3)	28(2.4)	0.001
Rural		79(6.0)	584(44.4)	387(29.5)	248(18.9)	16(1.2)	

Finally, Obesity and overweight were the most serious health problem in the north of Iran and suffered more than half of adult people with it. Urbanization and gender are risk factors for obesity morbidity. The difference of overweight between gender is remarkable in this area and should be studied in the future.

This paper created from provincial incommunicable study and based on 258888 official documents was justified for publication. The authors would like to thank the medical and administrative staff in the Primary Health Care Centers of Golestan University of Medical Sciences for their valuable assistance during the field work.

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## Surgical management of ventricular septal defect with pulmonary stenosis with idiopathic thrombocytopenic purpura

### Abstract

Patients with idiopathic thrombocytopenic pupura (ITP), when under goes any cardiac surgery face an increased risk of postoperative haemorrhagic complications. A 28 years old female patient with idiopathic thrombocytopenic purpura (ITP) and Ventricular septal defect (VSD) with pulmonary stenosis (PS) was operated. We treated her with oral steroid for three weeks immediately before surgery. During surgery under extracorporeal circulation bleeding was controlled meticulously and she was administered methyl prednisolone, injection hydrocortisone, fresh frozen plasma, platelets and whole blood. Steroid was continued postoperatively for two weeks. She did not suffer from any haemorrhagic complication and her recovery was uneventful. Congenital heart disease with idiopathic thrombocytopenic purpura can be operated for heart surgery if appropriate pre, intra and postoperative measures are taken.

### Introduction

Though bleeding episode is inevitable that surgical procedure under cardiopulmonary bypass is the only treatment option this patient had. Post-operative bleeding remains a major problem after cardiopulmonary bypass. The increased bleeding tendency after cardiopulmonary bypass is a complex reflection of multiple haemostatic defects including coagulation factor deficiency, inadequate reversal of heparinization, increased fibrinolytic activity and platelet deficiency in quantity and quality<sup>1</sup>. If this condition associated with ITP chance of major bleeding increases, as immune thrombocytopenic purpura (ITP) is primarily a disorder of increased platelet destruction mediated by auto antibodies to platelet membrane antigen. We report here the strategy we used to manage a