

*Materials of Conferences***CORRELATION OF ANTHROPOMETRIC PARAMETERS IN PATIENTS WITH METABOLIC SYNDROME BEFORE ENDOSCOPIC GASTRO-BYPASS SURGERY**

Fursov A.B., Fursov R.A.

*Medical University Astana,
Astana, e-mail: fabcom@yandex.ru*

Urgency of this research is defined by the necessity of correct selection of patients with obesity and metabolic syndrome for surgical treatment aimed to lower their weight. The objective of this work is to study anthropometric indicators of overweighted patients with clinical picture of metabolic syndrome.

Material and methods of research. This work presents observation over 124 patients with obesity. Among them 35 individuals were selected for bypass surgery. The purpose of surgical treatment for this group was to influence the flow of diseases, related to obesity via significant decrease in body mass. The second reason therefore was to improve life quality of patients significantly and move aside the threat of premature death. The necessity of bariatric surgeries was studied strictly within medical aspect that has medical (not cosmetic or aesthetic) indication. Examination of anamnestic data among men and women has revealed the following results: Most of the observed women (85%) think that their weigh grew after they gave birth. At the same time, most male patients (78%) tend to relate their obesity with decrease in physical strain and giving up of sporting activity.

All patients who were selected for surgery had taken multiple efforts to decrease their weight independently. For example, diet and medical starving was used by 31 patient that equals 88,6% of the whole research group. However, weight loss was insignificant (around 8–10 kgs). In 1–2 months their body mass restored. Apart from that, 35 patients (100%) took several courses of conservative medicamental therapy. They took various anti-lipid preparations and additives. However, no one achieved weight decrease by more than 15 kgs. The described circumstances served as a reason for their application to a surgeon in order to take surgical weight correction. In this work efficiency of surgical treatment was defined by three diagnostic markers. These indexes that describe decrease in excess body mass (BM); effect of surgery upon flow of diseases, related to obesity; indexes that reflect changes in life quality. Laparoscopic technic of surgery was used as a standard method in all types of bariatric surgeries thus being the basic method of selection in our research.

The average age of all surveyed patients is $39 \pm 6,7$ years. Age of the operated and monitored patients varied widely from 21 to 58 years. Our study analyzed by sex composition, who underwent surgery were as follows: men accounted for a group of 8 patients (22,9%), women – 27 patients (77,1%). Moreover, in the young group of 21 to 30 years, females dominated. So the youngest and the oldest patients operated within our study were women (21 and 58 years, respectively). Men in the age plan took a position with a predominance of middle age. Thus, the youngest man to operate with overweight recorded was in the age of 31 year. The most senior in age was operated in 45 years. Most of the patients affected by the number of bariatric surgery in occasion of excess weight are registered in the age period from 40 to 45 years. Next, are patients aged from 30 to 35 years. Results of statistical analysis showed rather uneven picture of the distribution of all persons by age. By the method of variation statistics, we found, that the average value of the weight is body mass (M) of patients observed was 120 kg. The average statistical deviation (m) was equal to 15,6. The standard deviation (m^2) equals 11,0. In other words, $M \pm m^2$ corresponded to the value of $120 \pm 11,0$ kg. To determine the indications for surgical treatment of patients with metabolic syndrome, obesity our paper shows calculation of body mass index (BMI). In the process of preparing the patient for surgery, it was found, that the average value of BMI observed in patients was 43 kg/ m^2 . The average statistical deviation (m) was equal to 5,0. Standard deviation (m^2) equals 6,6. Thus $M \pm m^2$ corresponded to the value of $43 \pm 6, 6$ kg.

As seen from the statistics, the highest BMI, with which patients were operated, was 59,8 kg/ m^2 . The lowest 29,4 is registered for one patient aged 28 years. Performance standard deviation SD (Standard deviation) or deviations were not high or statistically significant, slightly different from the average deviation of **m and m²**. We can conclude from these statistical calculations, that the maximum weight of operated patients was 168 kg. The lowest weight, that is 80 kg recorded for one patient aged 21 years old. SD indicators (standard deviation or deviation) compared to age and weight also was not high or statistically significant. It differs little from the average deviation of **m and m²**, as in the previous comparison.

The results of patient's body weight measurement before the operation at the time of treatment of surgical treatment, after long and ineffective conservative treatments were plotted. Under visual analysis the sequence of events was determined

(angl.-case) with the order numbered 1, 2, 3 ... and so on. It revealed quite a large variation in body weight values of patients before surgery. For example: the first case of surveillance is 130 kg, the third is 98 kg, the seventeenth case is 80 kg. In other words, it can be argued that the method of statistical sampling in conducting scientific analysis in this paper is random. Consequently, the results of the calculations are more likely to reflect sufficiently reliable and very close to reality.

The age and weight dependence is stating correlations between these parameters. Given the calculation of statistical parameters Fisher gave the following correlation parameters: $r = 0,5$; $p = 0,002$; Fisher $z = 0,549$. At the same time, the Pearson correlation coefficient (r) was $-0,0594$, indicating a very weak relation. Different picture of the surveyed patients with weight-dependent correlation and growth was regis-

tered. The correlation coefficient of the data values in all groups was higher. So, taking into account the statistical parameters of the Pearson correlation coefficient (r) in these comparable figures was 0,3639, with an indication of multiple dependent values.

Thus, for a fair selection of patients with obesity and metabolic syndrome for bariatric surgery requires knowledge of the anthropometric indicators for the given patients. In addition, the correlative links comparison between indicators of age, weight, body mass index, body weight and height must be executed, in order to identify the highest correlation coefficient.

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