

Dietary Nutrition and Health Care Analysis of Pregnant Women in Pregnancy

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Abstract

To investigate the relationship between dietary nutrition and health care of pregnant women during pregnancy and the health of mothers and infants, and to supply a reference for healthy diet and nutritional hygiene of clinical pregnant women. A total of 168 pregnant women who voluntarily accepted personalized nutritional diet guidance during pregnancy within one year were selected as observation groups, and 168 cases were randomly selected from pregnant women with internal files in the same period as the control group, and the clinical data of pregnant women in the two groups were sorted and analyzed. A total of 168 pregnant women in the observation group had 3 cases of gestational hypertension, 1 case of CDM, 1 case of IGM, 5 cases of anemia during pregnancy, 2 cases of amniotic fluid abnormalities, 0 cases of fetal intrauterine development restriction, 0 cases of preterm infants, 3 cases of macroscopy, 21 cases of caesarean section, 2 cases of postpartum hemorrhage, while the control group had 16 cases of PIA, 6 cases of GDM, 8 cases of IGM, 39 cases of anemia during pregnancy, 11 cases of amniotic fluid abnormalities, and 7 cases of preterm infants with limited intrauterine development. In 12 cases of macrosomia, 53 cases of caesarean section, and 10 cases of postpartum hemorrhage, the difference in the incidence of complications in each of the two groups was statistically significant ($P < 0.05$), while the difference between the two groups was not obvious and statistically meaningless ($P > 0.05$). Reasonable diet and nutrition have important positive significance for the health care of pregnant women during pregnancy and can reduce the incidence of pregnancy complications and macrosomia.

Keywords

Pregnant women, Diet, Nutrition, Health care

1. Introduction

In pregnancy, the nutritional status of individuals and the occurrence, development and prognosis of the disease has an important relationship, the mother is the source of nutrition for the baby, the nutritional status of pregnant women will not only affect their own body functions, but also have an important impact on the development and growth of the fetus. If pregnant women lack nutrition during pregnancy, the fetus is prone to organ stunting or even stunted, and physiological function is low, which can lead to miscarriage, premature birth, or stillbirth. Therefore, a healthy, reasonable diet and health care are the key factors to ensure the healthy growth of the next generation, but in real life, it is often due to incorrect dietary structure, resulting in nutritional imbalance or overnutrition, affecting the health of mothers and babies, resulting in poor pregnancy outcomes. More pregnant

women have insufficient caloric energy intake, 35% of protein intake, and 67.5% of calcium intake, which will affect the development of the fetus [1]. First of all, is the impact of heat energy on the health of pregnant women, many pregnant women with sufficient caloric energy intake will significantly increase in weight in the third trimester, if the pregnant woman has a low weight gain in the third trimester, then the intake of heat energy should be increased, otherwise the intake of heat energy should be reduced, avoiding too much and too little heat energy intake to increase the incidence of perinatal children [2]. The intake of protein also has a certain impact on the baby's birth weight, pregnant women eat high-protein and low-ferver meals for a long time, which will reduce the weight of the fetus. In addition, the intake of trace elements has the most significant impact on fetal development, and the lack of trace elements may be that the intrauterine development of the fetus is relatively slow, reducing the immune function of the human body, and the most serious will cause the fetus to produce certain malformations [3]. Many pregnant women have serious problems with dietary nutrition, and insufficient nutritional intake mainly occurs in the middle and late stages. Therefore, this paper studies the relationship between dietary nutrition and health care of pregnant women during pregnancy and the health of mothers and infants [4].

2. Information and Methods

2.1 General Information

From January 2010 to January 2011, there were 336 cases of pregnant women, with an average age of 25.32 ± 3.45 years old, 1.54 ± 0.34 pregnancies, 0 to 2 births, and an average of 1.01 ± 0.57 births, including 211 cases of 125 first-born women. All patients excluded serious diseases such as liver, lung, heart, kidney, blood, etc., there were no complications before pregnancy, 168 pregnant women who volunteered to participate in the nutritional diet guidance during pregnancy were observation groups, and the other 168 pregnant women were control groups, and the basic clinical data of the two groups of pregnant women (such as age, pregnancy, birth, weight, height, blood pressure, blood sugar, family history, education level, eating habits, etc.) were not significantly different, statistically meaningless ($P > 0.05$), which was comparable.

2.2 Research Methods

Dietary intervention methods: Both groups of pregnant women are given formal training, and each pregnant woman is given a map of "Top Ten Health Foods", "Top Ten Health Killers", "Top Ten Junk Foods", "Food Compatibility", and 1 Pyramid Diet Guide for Pregnant Women Nutrition Experts. Observation group diet intervention: Observation group pregnant women need to record their 1-week diet and work exercise in detail, and the doctor will conduct research and analysis according to the pregnant woman's record table and weight changes, workload and exercise amount, calculate the patient's daily protein, calories, minerals and other intake, and give pregnant women corresponding guidance according to the recommended nutritional intake standards of the National Nutrition Society, correct their bad eating habits, and help pregnant women develop healthy and nutritious diet recipes. Nutritional therapy (MNT) regimens are offered to pregnant women with high-risk tendencies.

Analytical methods: Starting from 12 weeks of adultery, each pregnant woman should be followed up with the weight, height, blood pressure, blood glucose, uterine high, abdominal circumference, fetal hemoglobin, blood calcium, blood zinc, fetal double top diameter, amniotic fluid index, femoral length, etc., and the pregnancy outcome should be followed up, and the record data should include pregnancy hypertension, gestational diabetes mellitus (GDM), pregnancy with anemia, abnormal glucose tolerance (IGT) during pregnancy, caesarean section, fetal growth restriction, etc. The data of 336 pregnant women were reviewed, and the patient information was collected from their age, pregnancy, delivery, weight, height, blood pressure, blood sugar, family history, pregnancy complications, neonatal complications, neonatal weight, neonatal complications, etc., and sorted out, synthesized, and compared and analyzed by statistical methods.

2.3 Statistical methods

The statistical software SPSS12.0 is applied for data processing. The X test using the counting data showed that $P < 0.05$ were significantly different, and $P < 0.01$ were incredibly significant, all of which were statistically significant.

3. Results

Comparison of maternal complications: Clinical data of 336 cases of pregnant women were retrospectively analyzed, and a total of 112 cases of maternal complications occurred throughout pregnancy, including 7 cases of

gestational diabetes mellitus in 19 cases of pregnancy hypertension, 9 cases of abnormal glucose tolerance during pregnancy, 44 cases of pregnancy with anemia, 13 cases of preterm infants, 7 cases of fetal intrauterine development restriction, 13 cases of amniotic fluid abnormalities, and two groups of maternal complications, see Table 1.

Table 1. Observation group compared with the control group of pregnant women in the pregnancy complications

Types	Observation groups (n=100)	Control group (n=100)	P
premature	0	10	<0.05
Intrauterine development of the fetus is restricted	0	5	<0.05
Amniotic fluid abnormalities	1	8	<0.05
Anaemia	3	30	<0.05
Gestational diabetes mellitus	1	4	<0.05
Hypertension during pregnancy	2	11	<0.05

Comparison of pregnancy outcomes and neonatal conditions: Pregnancy outcomes of 336 pregnant women were followed-up, pregnancy outcomes between the two groups, neonatal complications, and weight, see Table 2.

Table 2. Comparison of pregnancy outcomes and neonates between pregnant women in the observation group and control group

Constituencies	n	Postpartum hemorrhage	Cesarean	Huge
Observation groups	100	2	10	2
Control group	100	8	50	10
P	<0.05	<0.05	<0.05	<0.05

4. Discussions

Pregnant women in pregnancy with the continuation of pregnancy will undergo a series of physical changes, the nutrients needed during pregnancy are significantly improved, if the nutrition of pregnant women at this stage cannot meet the physiological needs, it will cause a series of complications of pregnant women and newborns [5-6]. Pregnant women's daily caloric energy, nutrient intake should be in a good range, such as the average daily intake of heat energy per person should be supported at 1854 ~ 2470kcal, the increasing gestational months, the lack of heat intake of pregnant women also decreased. The protein intake of pregnant women during pregnancy is also extremely important, per capita daily should be sufficient 78 ~ 107g [7], but after investigation, the protein intake of pregnant women in China is still 35% of people insufficient, and the protein intake has nothing to do with pregnancy, and there is no obvious difference in protein intake among pregnant women during pregnancy. In addition, 67.5% of pregnant women have insufficient calcium intake, vitamin C is also 19% of pregnant women are insufficient, and it is worth noting that 65% of pregnant women have excessive vitamin C intake, which also plays a certain side effect on the health of pregnant women [8]. Pregnant women have different nutritional intakes in the first trimester, second trimester, and third trimester, except for calcium and vitamin B2. Calcium intake will gradually lack with the month of pregnancy, as the pregnancy time prolongs, pregnant women should increase calcium intake, otherwise there will be a serious calcium deficiency [9]. Riboflavin is slightly deficient in the first stages of pregnancy and gradually alleviates with the decrease in demand in the later stages. During the pregnant woman's diet should be based on cereals, about 22% to 26%, followed by vegetables, about 20% to 23%, eggs should be controlled at 12% to 17%, fruits should account for 11% to 14%, the relative demand for meat is less, only 7% to 10%, the proportion of oil and fat is very small, pregnant women should reduce the consumption of oil during pregnancy. Among them, cereals can provide pregnant women with a lot of thermal energy, and about 55.6% of the heat energy comes from it. Vegetables and eggs can provide pregnant women with a lot of protein, of which about 27.8% of the protein comes from vegetables, and the proportion of protein in eggs is 2/3. Other minerals, such as calcium, iron, and zinc, are basically derived from plants and meat, and also need to be eaten reasonably [10].

From Table 1, it can be seen that 168 pregnant women in the observation group who operated the diet intervention had a total of 13 cases of complications, including 3 cases of PIH, 1 case of GDM 1 case of IGM, 5 cases of anemia during pregnancy, 2 cases of amniotic fluid abnormalities, while 168 cases of pregnant women in the control group had a total of 99 cases of complications, including 16 cases of PIH and 6 cases of IGM, 39 cases of anemia during pregnancy, 11 cases of amniotic fluid abnormalities, 7 cases of fetal intrauterine development restriction, and 13 cases of preterm infants, and the difference in the incidence of each complication in the two groups was more obvious, $P < 0.05$, statistically significant to show that a reasonable and nutritious diet can reduce the incidence of pregnancy hypertension, GDM, IGM, anemia in pregnant women, reduce the possibility of amniotic fluid abnormalities, make the fetus develop well in utero, and reduce the occurrence of preterm birth; At the same time, from Table 2, it can be seen that the number of cases of macropodia, caesarean section and postpartum hemorrhage in the observation group are significantly lower than those in the control group, which is statistically significant ($P < 0.05$), while the number of low birth weight infants between the two groups is not significantly different ($P > 0.05$), indicating that reasonable diet and nutrition can reduce the incidence of clinical caesarean section and postpartum hemorrhage, which has a good positive effect on good pregnancy outcomes. Pregnant women in about 6 weeks of pregnancy when the early pregnancy reaction, so should eat more digestible foods, such as egg soup, broth, eat more fresh vegetables and fruits and other foods containing more fiber, diet to light, a small number of meals, should not eat more fried, greasy, spicy, and other irritating foods. Calorie intake to avoid producing macros is and causing dystocia [11].

For the dietary nutritional intake during pregnancy, some studies have found that the economic level is an important factor affecting the nutritional intake of pregnant women, there are great differences in the dietary composition of pregnant women at different economic levels, and many families with low economic levels, the dietary composition of pregnant women is relatively single, resulting in insufficient comprehensive intake of nutrition. In the nutrient intake, we found that calcium intake is most significantly affected by the economy, and the lower the income, the lower the calcium intake, and with the increase of economic income, the calcium intake also increases. For example, the proportion of fruit and milk eggs is proportional to economic income, which indirectly shows that vitamins, calcium, iron, and other nutrients are affected by income levels [12]. However, if the diet is reasonable, low-income people can also consume reasonable nutrition because the composition of the diet cereals is the most important, and then vegetables and fruits, therefore, economic factors are limited to nutritional intake. It is worth noting that cereal intake is inversely proportional to economic income, as the dietary composition of lower-income households is mostly dominated by staple foods. The degree and scope of the influence of the economic level on the diet of pregnant women are certain. Another factor affecting the dietary nutrition of pregnant women is the level of education, through the investigation, calcium, iron zinc selenium and other mineral elements, vitamins, riboflavin, ascorbic acid and other nutrients, its intake will increase with the improvement of cultural level. We found that the level of education can play a certain role in regulating the intake of nutrition, and the rationality of diet is also related to the level of education. Most nutrition changes with the change of education level. In the survey, milk egg foods and rhizome foods rarely appeared in households with low levels of education, which also showed that the rich trace elements such as calcium and zinc provided by milk eggs and rhizomes foods could not be ingested by pregnant women in these families [13]. Therefore, if you want pregnant women to have a more reasonable diet, pregnant women and their families have received a good education, and have been exposed to a lot of scientific knowledge is extremely important, the higher the level of education, the greater the amount of knowledge, pregnant women will know more about reasonable diet matching, and pregnant women will better understand the health care during pregnancy, and the importance of nutrition, and the intake of nutrients will also increase [5].

5. Summary

Avoid the occurrence of over satiety, over hunger, and pay attention to the addition of appropriate amounts of pregnant women during pregnancy nutritional diet intervention needs pregnant women this folic acid, early pregnancy reaction mild can eat more rich in nutrition of people's families, medical staff and other multi-level common ginseng of fish and animal liver, etc.: in the second trimester of pregnancy pregnant women every day, should strengthen pregnant women and their families of the nutritional diet should pay attention to supplementing protein (15g) and calcium health education, to promote the formation of their healthy diet concept to reduce (1000mg) iron (25mg) zinc (20mg) and other trace amounts of pregnancy complications, prevents macrospores from occurring, improves pregnancy outcomes, and thus improves maternal families.

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