

KNOWLEDGE AND PRACTICE OF PREGNANT WOMEN IN FARS PROVINCE ABOUT INTAKE OF IRON SUPPLEMENTS

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Abstract- Need of mother and fetus to iron gradually increases during pregnancy and reaches its highest level at the end of the pregnancy. This study was performed to evaluate the knowledge and practice of pregnant women in Fars province about supplements containing iron intake. Data were collected by a questionnaire, including their demographic information and questions about the importance and method of consumption, unused complications and the method of iron table intake, completed by face to face interview using simple nonrandom sampling method in 2997 pregnant women of urban and rural areas. Among studied women, 44.4% of women were in the first pregnancy, 25.9% in the second, 14.2% in the third and 15.5% in fourth and later pregnancies; 75.9% of pregnant women were aware about the reason of iron supplementary use during pregnancy, 86.3% knew the method of administration and 91% used supplements containing iron after fourth month of pregnancy. The lowest rate of use was seen in Abadeh and Eghlid and the highest in Estahban; 43.3% used the tablet correctly. Further studies are needed to judge about the percentage of correct daily iron need, the percentage of correct use and digestive system complications.

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INTRODUCTION

Iron deficiency anemia is the most important and common nutritional disorder in the world (1, 2). It occurs among all age and sex groups but the pregnant women have a greater chance to suffer from it.

During pregnancy, the need of mother and fetus gradually increases and will reach to its highest level at the end of pregnancy. The reason for this high demand is mother blood volume increase up to about 35%, fetus growth, placenta and other mother tissues which increases the need to iron up to three to five

times in the second and third trimesters. In situations of low level of storage, this high demand could not be provided even by diet enriched in iron and can only be partially compensated by an increase in iron absorption (3-5).

Iron deficiency anemia in pregnant women will cause an increase in preterm labor and low birth weight infants (4-7). Anemia is the main factor of post labor mother's mortality and may also cause mother death during delivery (8). An estimated 20% of pregnant women in Africa and 22% in Asia are at risk of mortality due to anemia, whether directly or indirectly (9-11).

Iron deficiency, and anemia caused by it, is an important health problem in Iran. According to a study conducted in 1995, about half of fertile women suffer from iron deficiency and one third from anemia (12). American Center for Disease Control

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and Prevention and the College of Obstetrics and Gynecology suggested the use of iron supplements during pregnancy to prevent anemia (13-15). World Health Organization suggested supplementary iron for all pregnant women in the regions where the incidence of anemia in pregnancy is at least 30%, which covers most developing countries (15). Using prophylactic iron supplement during pregnancy will lead to increase in infant weight and also would prevent premature infant birth (16).

Ferrous phosphate is accessible in all health centers and health houses for pregnant women and the importance of iron consumption is emphasized in all pamphlets and educational packages available to pregnant women. This study was performed to evaluate the knowledge and practice of pregnant women in Fars province about consumption of iron supplements.

MATERIALS AND METHODS

This is a descriptive analytical study conducted using simple nonrandom sampling method in urban and rural areas. We obtained informed consent from all participants. From May 2005 to May 2006, 2997 pregnant women who referred to Fars Province Health Centers were enrolled.

Data collection was performed by a questionnaire completed by face-to-face interview. The questionnaires contained two sections. The first one included demographic information and section two covered questions about the importance and method of iron consumption and complications of absence of iron intake and the method of iron tablet use.

Collected data were entered in EPI software and were analyzed using descriptive statistical tests. Statistical significance was considered as $P < 0.05$.

RESULTS

Out of 2997 pregnant women, 44.4% were in the first pregnancy, 25.9% in the second, 14.2% in the third, and 15.5% in fourth and later pregnancies. Among studied women, 6.9% of pregnancies were unwanted ones. Findings showed that 75.9% of pregnant women were aware of the reason of iron

supplementary use during pregnancy, and 86.3% knew the method of administration. A total of 91% of pregnant women used supplements containing iron after fourth month of pregnancy (6.8% used fiful capsules, hematinic, iron norm and other ferrous sulphate tablets).

Iron supplement unused rate during pregnancy showed a significant difference in different cities of Fars province which was statistically significant ($P < 0.005$). The lowest rate was seen in Estahban (22.4% of unused) and the highest rate in Abadeh and Eghlid (3% and 3.8% unused); 43.3% of iron supplement pregnant users used the tablet correctly. Out of the pregnant, 17% suffered from digestive complications, such as nausea, vomiting, diarrhea and or constipation while using iron supplements from whom, 7% had to change the type of supplement and 2% had to stop its use due to their complications.

DISCUSSION

Iron deficiency is one of the most common nutritional disorders in developing countries (16). Iron deficiency is the most important factor of nutritional anemia in pregnant women at productive ages and children and the number of affected iron deficiency and anemia in the world was estimated 2150 and 1200 million individuals, respectively (17). Based on the report of World Health Organization, 58% of the women in developing countries suffer from anemia and in spite of suggestion to use iron during pregnancy in their health policies, no reduction was observed.

In our study, 91% of pregnant women in Fars Province used one of the kinds of supplements containing iron after termination of the fourth month of pregnancy. In the United States, 72% (18), in Switzerland 65% (7), in West Nepal 72.8% (19) and in Egypt 86% (20) of pregnant women used such supplements. Regarding the partial high anemia and iron deficiency incidence in pregnant women, further study should be conducted on iron efficiency in pregnant women. Although 93.3% of women used iron supplements and knew the correct method of use and practice and also 17% experienced digestive complications, but only 2% of such women

discontinued its use. So, further studies are needed to test the stool simultaneously and to control the daily iron intake to judge the percentage of correct daily iron intake, and the percentage of digestive complications.

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Conflict of interests

The authors declare that they have no competing interests.

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