NUTRITION DURING PREGNANCY

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Introduction

The improvement of perinatal outcome requires a concentrated effort to deal with as many risk factors as possible in the prenatal period. Nutrition is one of the risk factors that can be improved. The improvement of the nutritional status among health professionals in our country, is enabled, by the realisation of the importance of being knowledgeable and updated on information on subject matter. A dietitian can play an important role in the delivery of optimal prenatal care. It is imperative that proper nutritional counselling on a regular basis to the pregnant woman, is introduced as part of her prenatal care.

Methodology

To determine the nutritional knowledge of expectant mothers, health educators and physicians, in the Maltese Islands, mini studies were carried out on the following subjects, namely:

1. Evaluation of public statistics on infant morbidity and mortality;
2. The knowledge of food among sixty pregnant women;
3. Physicians' advice on a number of aspects concerning nutrition and nutrient supplementation during pregnancy;
4. Pharmacists' role in the proper use of mineral and/or vitamin supplementation and the precaution of excessive use of these supplements within this group;
5. The level of nutritional education of the antenatal courses carried out by midwives and child birth educators.

In addressing the advisability of supplementation, biochemical, anthropometric, clinical and dietary methods were reviewed for measuring the adequacy of specific nutrients during pregnancy. Nutrients that can be provided in adequate amounts by dietary means and those for which supplementation may be desirable were clearly identified. Special attention was directed towards proteins, folate, iron, zinc, calcium and vitamins. Vitamins and minerals that might exert toxic effects if taken in high doses was discussed. Evidence regarding the potential values of periconceptional multivitamin supplements, in the prevention of neural tube defects was evaluated. The interaction of diet with use of tobacco, alcohol and caffeine was reviewed.

Results

The studies mentioned below refer to studies 1 to 5 as specified under 'methodology'.

Study 1 20.4% of the forty nine infant deaths were caused by slow fetal growth, fetal malnutrition and immaturity in the first four weeks of life.

Study 2 Vitamin C, proteins and calcium rich foods were clearly identified by 78%, 50% and 48% respectively, of the 60 randomly chosen pregnant women. Foods rich in iron and folic acid were less easily identified by the expectant mothers. High calorie foods were confused by 66% of these pregnant women.

The main informant of nutritional knowledge to the pregnant mother is the gynaecologist (42%). Only 10% consider the need for the advice of a dietitian.

Study 3 65.2% of the general practitioners advice the expectant mother for an increased intake of red meat and dairy products, particularly milk and a decreased intake of coffee, liver, fats and oils, and high carbohydrate foods such as bread and pasta. Nutritional advice is only given on quality and never on quantity of food intake or on meal plans. The amount of extra calories needed daily and the ideal final weight gained by the mother, were inaccurately answered by 60% of the general practitioners involved in the study.

Together with a balanced diet, nutrient supplements are advised to healthy pregnant women by 90% of the doctors as a safeguard.

Study 4 88.9% of the pharmacist interviewed agreed that they should help the expectant mother to achieve a well balanced diet and the proper use of nutrient supplements. 55% of the pharmacists said that there is no actual need for increased dietary intake during pregnancy. Indeed 67% disagreed that pregnant women should be given routine mineral/vitamin supplements as a safeguard. The pharmacists are aware of the disadvantages caused by nutrient supplements, but only 43% could give proper food sources for the planning of a healthy balanced diet.

Study 5 A good antenatal course is that offered by the Child Birth Educators. Apart from being a very well planned course it provides useful information on diet planning, explained with the help of food groups taking into consideration, types of food available locally.

Discussion

The expectant mother although aware of the importance of her diet during pregnancy, lacks nutritional knowledge. The health professional (general practitioner, pharmacist, dietitian, midwife and nurse) has the important role of guiding the mother to keep a healthy diet during pregnancy.

The decision to provide special dietary intervention and/or nutrient supplementation must be made on an individual basis using the best judgement of the health professional. Hence the health professional should have a very good nutritional knowledge, since by proper patient counselling all dietary nutrients, including iron and folic acid (commonly prescribed during pregnancy), can be adequately achieved by diet alone.

Controlling the weight of the pregnant woman, is another routine test during pregnancy, as are the tests of taking the blood pressure and urinalysis. But a test is only justifiable if it may influence clinical management. Birth rate and incidence of infant morbidity and mortality are directly effected by the woman's weight for height before pregnancy and her weight gain during pregnancy. Therefore special attention should be given to this anthropometric measurement, for the test to be effective.

Conclusion

Dietary supplementation should not replace dietary counselling or a well-balanced diet. Improvement of diet quality, preferably by the help of a dietitian, through use of nutritious foods is strongly preferred to supplementation since food supplies energy and essential nutrients, not found in supplements.

Routine assessment of dietary practices is recommended for all pregnant women to facilitate evaluation of the need for improved dietary habits or mineral or vitamin supplement. Tools A, B, C, D and E (specified in

Chapter 5) were designed to facilitate the nutrition assessment performed by the health professional, preferably a dietitian, to the pregnant mother.

The recommendations brought up by this study were aimed at increasing the awareness of nutrition during pregnancy for the health professional and the expectant mother. Suggested improvements to the nutrition educational services are:

1. An educational leaflet aimed to help the mother (specimen copy as appendix D);

2. A medical update designed to point out the importance of nutrition during pregnancy to the health professional (general practitioner, pharmacist, midwife and nurse, specimen copy as appendix D);

3. Audio visual aids and colour posters by which mothers can be easily helped to understand the subject (such aids were obtained from overseas agencies as part of the research undertaken in this thesis).

Careful attention to the information in this report should help stimulate practice towards a common goal of improving the health and well being of pregnant women and their neonates, of the Maltese Islands.

References

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