

Psychoprophylaxis of Premature Delivery Within the Diabetic Women

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Abstract

The mean duration of pregnancy and the occurrence of premature deliveries were compared in three groups of pregnant diabetic women receiving different treatments at the Institute of Gynecology and Obstetrics, Medical Academy in Cracow in the years 1980–1990. It has been found that pregnancy was the shortest, only 36 weeks, in women treated by traditional methods in the years 1980–1986, prior to introducing routine intensive conventional insulin therapy, in which diabetes was not controlled in terms of the present criteria. Half of these patients had premature delivery. Since the introduction of intensive insulin therapy and more strict criteria of control in the years 1987–1989 the mean duration of pregnancy was 38.2 weeks, which conforms with the biological standard for human pregnancy and the occurrence of premature deliveries dropped to 13.1%. Particularly low was the occurrence of premature deliveries (i.e. 5.7%) in mothers treated in 1990, a year in which attention was brought to the psychological aspect of treatment and various forms of psychotherapy appeared combined with the formerly used pharmacotherapy. The pregnancies in this group were longest and their mean duration was 39.1 weeks.

Psychotherapy seems to be a significant element in treatment of diabetes complicated pregnancy and its application allowed to reduce the number of premature deliveries in this group of patients.

Introduction

Premature delivery is still one of the basic problems in treatment of diabetes. Until recently, earlier termination of diabetes complicated pregnancy was a routine procedure in fear of intrauterine death of a child. It was the modern method of pregnancy management in this group of women which caused a radical change

in the attitude of obstetricians towards the method and the choice of a proper moment for terminating pregnancy.

At present, many authors treat premature delivery in terms of a psychosociological phenomenon and the role of the emotional factor in its etiology has already been proved^{2,5}. It is also known that pharmacotherapy alone is often insufficient in the treatment of threatening premature delivery and very frequently attention is brought to the importance of psychological means.

Diabetic patients differ from others by their specific personality, some authors even speak of a diabetic personality and psychic factors play their role in the etiology of the disease. These special psychological conditions cannot be neglected in treatment, the more so, that they concern a future mother.

It seemed interesting to compare the results in treatment of diabetes in groups of pregnant diabetic women who received different therapy, with special attention to those treated with psychotherapy.

Material and Methods

The study covered 189 pregnant diabetic patients treated at the Institute of Gynecology and Obstetrics, Medical Academy in Cracow over the years 1980/1990. The patients were divided into 3 groups depending on the therapy used in different periods of time and we compared the mean duration of pregnancy, the frequency of premature deliveries and the mean time of hospitalization.

Group I consisted of patients treated in the years 1980–1986; group II of those treated in the years 1987–1989; and group III of pregnant women treated in 1990. Until 1986 traditional methods of diabetes treatment were used, insulin administered in 1–2 daily injections and the control criteria were higher than those required at present.

In 1987 a routine intensive conventional insulin therapy was introduced, consisting in administration of insulin in 4–6 daily injections with much more strict criteria of control according to which glycemia in fasting state should not exceed 75 mg% and at 1–1.5 hour after a meal – 140 mg%. Patients treated in 1990 were considered as a separate group because in that year psychotherapy was introduced into routine procedures in the treatment of pregnant diabetic patients, while the insulin therapy was the same as for group II.

Apart from the obligatory 5 day theoretical and practical trainings which the patients receive at the Endocrinology Department of the Institute of Internal Medicine, Medical Academy in Cracow, discussions carried during the patients stay in our Department are intended to reduce their fear, through explaining the pregnancy related conditionings of the disease and the need of intensive therapy offering a guarantee of birth of a healthy child.

In cooperation with the Laboratory of Psychosomatics and Psychotherapy of the Surgical Department, Medical Academy in Cracow, we teach psychophysiological relaxation. Patients attend 10 minute measurement sessions and their relaxation rate is assessed by measuring of galvanic-skin reflex. After the session pregnant women are informed in detail of the type of their reactions and how they should model them.

Results

Pregnancies in group I had a mean duration of 36 weeks, that is less than the biological human pregnancy norm i.e. 281 ± 22 days³. In groups II and III the mean duration of pregnancy was within biological norm: 38.2 and 39.1 weeks respectively. Frequency of premature deliveries in group I was 50%, in group II 13.1% and in group III only 5.7%.

The mean duration of hospitalization in the Internal and Maternity Wards was 120 days in group I, 44 days in group II and 23 days in group III.

Discussion

The results obtained in group I greatly differ from the two remaining groups. The mean duration of pregnancy did not even reach the lower limit of biological norm and half of the deliveries in this group were premature. It was the result of incorrect management of diabetes in that period and of wrong control, in spite of long hospitalization.

In groups II and III the same kind of insulin therapy and the same control criteria were used, but the difference consisted in the routine use of psychotherapy in all future mothers of group III. In this group of women the mean duration of pregnancy was the longest and the occurrence of premature deliveries more than twice less frequent than in group II receiving the same pharmacotherapy.

It is worth mentioning that the mean duration of hospitalization in group III was considerably shortened and was only 23 days, which also has a psychotherapeutic significance, because in many cases of premature deliveries not caused by organic changes there occurred disturbances in family relationships which may depend in case of longer hospitalization¹.

Fear is mentioned among psychological factors and may contribute to premature delivery. The level of fear in diabetic patients is elevated, which relates to the nature of the disease and to its incurability. The cause of fear for a diabetic mother are the current opinions on pathological pregnancies caused by diabetes, given by people who base them on past experience and are ignorant of the change in prognosis in such cases. There are repeated fears that a child will be born with a congenital defect, can die before or after birth or that it will be diabetic. A patient must understand the nature of the disease and realise the benefits offered to her and to her child by treatment, so that she can consciously cooperate with her physician. Therapy cannot be successful if this condition is not met. Skillful psychotherapeutic procedures must reduce fear and give the mother a feeling of security in relation to both her and her child. Only such complex attitude to treatment through normalization of the internal condition of patient's system and of her psychoemotional condition allows to bring it close to balance in terms of thermodynamics and to provide proper environment to the child for whom its mother's serves as such immediate environment for 9 months⁴.

Conclusion

Psychotherapy is a significant element in the treatment of pregnancy complicated by diabetes and its application allowed to reduce the occurrence of premature deliveries in this group of patients.

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