Int. J. Prenatal and Perinatal Studies (1991) 17–21

Evaluation of the Emotional State Induced by the Diagnosis of Fetal Malformation

*A. Pachì**, M. Di Giusto*, T. Giorgetti**, R. Paesano**, and R. Lazzari**

University of Rome "La Sapienza", Faculty of Medicine and Surgery
* Institute of Psychology (Prof. R. Lazzari)
** IV Obstetrics and Gynecologic Clinic

Abstract

To tell a couple that the child they are expecting has a serious disease means placing the couple itself in a critical condition fraught with psychological correlations.

In this study, the authors considered the moment in which the diagnosis was confirmed and illustrated to the couple. The state of emotional tension present was evaluated with psychometric methods. Two sub-groups were identified on the basis of the following parameters: previous procreative situation, high risk pregnancy, recurrence risk, trait anxiety. The values of the present anxiety, obtained from the two sub-groups, were compared by means of statistical methods.

Introduction

To tell a couple that the child they are expecting has a serious disease means placing the couple in a critical condition fraught with psychological correlations. Considerable psychic resources are needed to face this situation and to adequately overcome it [1].

If the first moment of diagnostic suspicion still leaves open a possibility for the hope that there has been a mistake or that it is a limited problem, the confirmation of the diagnosis with the specification of the extent and the characteristics of the malformation, places the couple before a concrete reality which leaves no more room for disbelief or illusions [2,3,4].

Some factors can contribute to the determination of the specific experience of the single couple before such a disappointing eventuality [5].

The previous procreative condition, according to whether it has satisfied the natural desire of maternity/paternity or not, certainly influences the degree of frustration experienced.

The previous knowledge of a risk of some fetal pathology, can have, in some way, prepared or, at least, made less unexpected the confirmation of the disease.

The low recurrence risk of the diagnosed malformation can make the situation less a source of anxiety compared to the case of a high recurrence risk which seriously compromises the positive outcome of possible future pregnancies.

Finally, the basic personality of the woman who lives the disappointment of her unfortunate motherhood more directly influences the capacity of impact and solution with respect to the entire situation.

In this study, we wanted to try to measure, to quantify the state of profound malaise induced by the diagnosis of serious fetal malformation and to evaluate the incidence which the particular circumstances surrounding the pregnancy can eventually have on such malaise.

The object of our consideration has been the moment in which the diagnosis is definitely confirmed and illustrated to the couple in all its detail.

In the context of the members of the couple our attention has been focused particularly on the woman insofar as she is the spokesperson of the problem both personally, of the couple itself and of the entire family.

Subjects and Methodology

Our observations have been carried out on patients in the second trimester of pregancy. A serious malformation of the fetus had been diagnosed in each at the Prenatal Diagnosis Centre of the University of Rome, "La Sapienza".

In one group of such patients (n = 28), in the course of the interview envisaged by the Centre for such situations, the state of emotional tension was measured using psychometric methods.

For this purpose, the State-Trait Anxiety Inventory (STAI) was used. This is a self evaluation questionnaire made up of two distinct scales: the first scale measured the level of *present* anxiety, that is, the anxiety felt by the subject in a precise situation, in the present, "State anxiety": the second scale measures the level of *basic* anxiety, that is, the habitual tendency of the subject to respond, with heightening levels of anxiety, to situations perceived as stressful, "Trait anxiety"[6].

The results obtained in the study group were compared with those of the normative Italian sample which is made up of 205 subjects for the female population. The differences found were evaluated by means of the "t" test of Student for their statistical significance.

Compared to the parameter "previous procreative situation", the patients were divided again into sub-groups according to the presence or absence of living children. Then, the average values obtained by the two sub-groups were compared in the State anxiety scale by subjecting them to the "t" test of Student.

For the other parameters the procedure was analogous. For the "high risk pregnancy" parameter a distinction was made between the presence or absence of prior knowledge of the condition of risk; for the parameter "recurrence risk"

a distinction was made between low or high recurrence risk; for "Trait anxiety", we tried to identify two sub-groups on the basis of whether the individual level of Trait anxiety was below or above the average value obtained by the whole group.

Results and Comment

The study group was made up of patients of an average age of 29 years (sd = 5; 45; r = 17–38). All education levels were represented (elementary = 7%; Junior High = 47%; Senior High = 39%; University = 7%). Various professional categories were also represented on proportions which closely follow those of the population in general.

Half of the patients (50%) had already been pregnant and given birth; the other half were expecting their first child either because they had had previous abortions (14%) or because it was their first pregnancy (36%).

In 39% of the cases it was already known that this was a "high risk" pregnancy, but in 61% of the cases the discovery of the fetal malformation was completely unexpected.

So, malformation is characterized by a low recurrence risk in 71% of cases while the recurrence risk appears to be rather high in 29% of the sample.

On the Trait anxiety scale, the group obtained an average value of 44.92 (sd = 10.77); compared to the average value of the normative sample 45.20 (sd = 12.37), the difference does not appear to be statistically significant.

On the State anxiety scale, the patients reach an average value of 62.96 (sd = 7.95). This is clearly higher than the average value of the normative sample (45.20, sd = 12.37) with a statistically significant difference of a = 0.01.

Comparing the average values obtained on the State anxiety scale by the sub-groups of patients who already had term pregnancies and the patients who were expecting their first child, they reached average values which were very similar (63.29, sd = 8.03; 62.62, sd = 8.36). The difference was not statistically significant.

The same result was obtained when we compared the average values of the State anxiety scale of the sub-groups of patients with pregnancies already known as "high risk" pregnancies (60.64, sd = 7.78) and patients with pregnancies thought to be natural (64.56, sd = 8.45). This was also the case for the sub-group of patients for whom fetal malformation was a low recurrence risk (62.89, sd = 7.66) or for those with a high recurrence risk (61.88, sd = 6.56).

Finally, two sub-groups were indentified on the basis of whether the individual values of the Trait anxiety scale were above or below 44.92, the average value of the whole group. The comparison between the average values obtained by the two sub-groups on the State anxiety scale (66.67, sd = 8.05; 58.77, sd = 5.93) shows a considerable difference which is statistically significant for a = 0.01.

Conclusions

The data obtained with psychometric methods confirm the clinical findings that the diagnosis of a fetal malformation induces in the patients a state of emotional tension of very considerable extent, in the absence of psychopathological disturbances of the basic personality. This was what was suggested by the clinical interview and the average values of the Trait anxiety scale.

The fact of having had or not had children, of being aware or not that the pregnancy is at risk, of having a low or a high recurrence risk of the malformation itself does not seem to influence the degree of anxiety tension felt in the impact with the diagnosis, even if, in our opinion, on the basis of our clinical experience these elements can subsequently be favourable or hindering factors for the positive resolution of a frustrating experience.

On the other hand, in the determination of the level of anxiety felt more immediately in response to the diagnosis, the basic structure of the personality of the patients seems more important. In particular, their peculiar tendency to respond, with a greater or lesser degree of tension, to the events experienced as stressful, like for example, the discovery of a fetal malformation.

Table 1.

Comparison of sizes	Average values	Values of "t"	Significance
X2 study group	44.92 sd = 10.77		
versus		0.54	No sign.
X2 normal sample	46.10 sd = 11.53		
X1 study group	62.96 sd = 7.95		
versus		10.26	a = 0.01
X1 normal sample	45.20 sd = 12.37		
X1 P. with children	63.29 sd = 8.03		
versus		0.21	No sign.
X1 P. without children	62.62 sd = 8.36		
X1 P. at risk	60.64 sd = 7.78		
versus		1.27	No sign.
X1 P. not at risk	64.56 sd = 8.25		
X1 Low rec. risk	62.89 sd = 7.86		
versus		0.34	No sign.
X1 High rec. risk	61.88 sd = 6.56		
X1 group with X2 < 45	58.77 sd = 5.93		
versus		2.93	a = 0.01
X1 group with X2 > 45	66.77 sd = 8.05		

References

1. Di Giusto, M., Paesano, R. and Pachì, A. (1981). Terapia di crisi in ambiente ostetrico-ginecologico. In: Volterra, V. (ed.) *Finalità della psicoterapia*, 295–298. Patron Ed., Bologna
2. Fortier, L. M. and Aandless, R. L. (1984). Family crisis following the diagnosis of the handicapped child. *Family Relations* **33**, 13–18
3. Jones, O. W., Penn, V. E., Shuchter, S., Stafford, C. E., Richards, T., Kernchen, C., Gutierrez, J. and Cherkin, P. Parental response to mid-trimester therapeutic abortion following amniocentesis. *Prenatal Diagnosis* **4**, 249–256
4. Neidhart, A. (1986). Why me? Second trimester abortion. *Am. J. of Nursing* **10**, 1133–1135
5. Di Giusto, M. (1986). Problematiche psicologiche relative alla informazione alla coppia in presenza di "malformazione". *Il Corso della Formazione Permanente in Psicosomatica della Riproduzione Umana*. Genova
6. Spielberg, C. D., Gorsuch, R. L. and Lushene, R. E. (1970). *Manual for the State-Trait Anxiety Inventory*. Consulting Psychologist Press, Palo Alto, California