Int. J. Prenatal and Perinatal Psychology and Medicine Vol. 6 (1994) No. 3, 347–354

Labour Pain in Induced Abortion

– Invited Paper –

M. di Giusto and A. Pachì***

* Department of Psychiatric Sciences and Psychological Medicine, Faculty of Medicine and Surgery, University of Rome, "La Sapienca", Rome, Italy
** II Clinic of Gynaecology and Obstetrics, Faculty of Medicine and Surgery, University of Rome, "La Sapienca", Rome, Italy

Abstract

The authors of this study set out to examine and measure pain experienced during labour and delivery by women who requested an induced abortion in the II trimester following prenatal diagnosis of fetal malformation. Their aim was to verify how and in what way the particular affective-emotive state influenced their perception of pain. These patients were asked to complete the McGill Pain Questionnaire by R. Melzack in the 24 hours following the induced abortion.

The emotive resonance which even the reduced sensorial stimulus evoked was considerably intense. Even though the patients tried to participate and be involved as little as possible in the abortion, their defensive mechanisms were not sufficient to protect them completely from their deepest emotions.

Zusammenfassung

Den Autoren dieser Untersuchung geht es darum, den erlebten Schmerz von Frauen während der Wehen und der Entbindung zu erfassen, bei denen im zweiten Schwangerschaftsdrittel nach der Feststellung einer Fehlbildung ein Abort eingeleitet wurde. Das Ziel dabei war festzustellen, wie und in welcher Weise die besondere emotionale Verfassung der Frau ihre Wahrnehmung des Schmerzes beeinflußte. Dazu wurden diese Patientinnen aufgefordert, den McGill-Schmerz-Fragebogen in der Version von R. Melzack am Tag nach dem eingeleiteten Abort auszufüllen.

Correspondence to: Prof. Antonio Pachì, II Clinic of Gynaecology and Obstetrics, University of Rome, "La Sapienca", Policlinico Umberto I, Viale Regina Elena 324, 00161 Roma, Italy

Es zeigte sich, daß die emotionale und affektive Reaktion auf den eingeleiteten Abort sehr beträchtlich war, obwohl die körperliche Belastung wegen der Kleinheit des Kindes wesentlich geringer war als bei einer normalen Geburt. Obwohl die Patientinnen bemüht waren, sich von dem Vorgang des eingeleiteten Abortes soweit wie möglich zu distanzieren, reichten ihre Abwehrmöglichkeiten doch nicht aus und es kam zu sehr tiefen emotionalen Reaktionen.

Introduction

Prenatal diagnosis of fetal malformation in the II trimester of pregnancy is an event which hinders realization of healthy and normal procreation. It occurs at a particularly important psychological moment because the psychic processes connected with maternity are brusquely denied by the fetal pathology. The imagined and expected child is lost and his place is taken by an unknown and extraneous fetus which disappoints the legitimate desire for a normal baby[1].

The couple goes through a whole gamut of emotions: disbelief, depression, anger, search for information, requests for assistance until the final decision is made either to bring the pregnancy to term or to terminate it. This is a particularly difficult period lived with high levels of anxiety and tension[2]. Most often it culminates in a request to terminate the unfortunate pregnancy. Of all the reasons adduced[3], in the last analysis, one prevails over all the others: "I can't face it".

Women today have not denied their roles as mothers, rather, they have acquired a greater and better awareness. They are more and more part of the world of work and participate more actively in the life of the group. Naturally, this new social position gives rise to new organizational problems in the management of daily affairs in order to reconcile life in the family with professional life[4]. This has had a decisive influence on the decline of the birth rate and on the ever-increasing desire to have only "healthy and perfect" children.

A malformed child can put one's self-esteem to the test and sorely try the possibility of reconciling one's present social activities with the special care an unhealthy child demands from all the family. "I can't face it"; and the decision is taken.

Once this type of choise has matured, all the anxieties which characterized the first period following the diagnosis of the pathology converge on the more immediate aspect of the abortive delivery. This is used defensively to protect the patient from deeper phantasms which can, at least for the moment, be set aside. The termination of the pregnancy becomes the means for side-tracking anxiety from the present highly-conflictual internal situation to an external, concrete and practical event and so easier to face from the psychological point of view. And again, the concretization of the process of separation and distancing of a child which has disappointed the expectations of normal and healthy procreation becomes the most valid defence from the continuous threat to one's self-esteem.

In a normal-term pregnancy delivery marks the material separation of the body of the child from the body of the mother. The womb without the fetus can

be experienced as a womb finally free, or, on the contrary, as an empty womb depending on the degree of awareness which the mother has concerning the individuality of the child.

In a pregnancy terminated because of fetal malformation, delivery takes on quite another meaning. The womb, already emptied of the imagined and hoped-for child due to the pathology, will finally be free from the unknown, extraneous, disappointing and threatening thing, by means of the abortive delivery.

The different phantasmic experience that underlies the attitude with which one faces labour and delivery will certainly have repercussions on the way in which the pain, naturally connected with that experience, will be felt.

Much has been written about labour and delivery pain. There is no doubt that it is the result of the convergence of many interacting factors. In the first place, some strictly organic factors must be considered, like the frequency, intensity and duration of the contractions, the age and parity of the woman, the preparation of the cervix, the relationship between the size of the fetus and the birth canal, and so on. In the second place, racial, cultural and ethnic factors must be considered. Some populations express and describe the experience of pain more emotively and in more detail than others. Finally, but not less importantly, are the psychological factors which intervene to form and modulate the perception of pain; thoughts, attitudes, the tone of humour, previous experience and the quantity and quality of information, all contribute to the determination of the final aspects of the pain experience[5,6].

In fact, when we speak of pain in general, we find it very difficult to give a clear and exhaustive definition because we are faced, not with a simple perception, but with a more complex phenomenon: a multi-dimensional experience characterized by different varying qualities according to sensorial and affective dimensions.

We can, however, identify a more strictly organic aspect linked to the mechanical stimulation of the specific receptors: the sensorial aspect of pain. This is always accompanied by an affective-motivational aspect responsible both for the unpleasant emotive states which accompany the experience and are manifested in terms of tension, fear and autonomic signs, and in the opposing tendencies of attack or flight in an attempt to seek relief. Finally, we can recognise an evaluative aspect linked to a subjective evaluation of the global intensity of the total experience of pain. That is, to the evaluation of the importance and significance of the whole situation on the basis of sensorial and affective dimensions, but also on previous experience, on one's capacity to reach one's aim, and on the value given to the present circumstances. Thus, the experience of pain is situated in the multi-dimensional space of the particular person experiencing it at that particular moment[7].

Materials and Methods

On the basis of these considerations we set out to examine and measure the pain experienced during labour and delivery by women who had requested a termination of pregnancy in the II trimester following the prenatal diagnosis of

fetal malformation. Our aim was to verify how and in what way the particular affective-emotive state of these patients could influence their perception of pain and the particular circumstances and experiences which accompanied and determined the induced abortion.

This study was carried out on 24 patients who, following the diagnosis of serious fetal anomalies, had requested the termination of their pregnancy in accordance with the law currently in force in Italy.

The average age of these patients was 31 (sd = 6.36); most of them (67%) had second level education; 21% had attended compulsory schooling and 12% were graduates. 67% had a job outside the home and 33% worked only in the home. 54% were primiparous and 46% had already given birth.

The pregnancies were for the most part planned (79%) and had, in any case, been well received and begun with joy. Gestation was proceeding normally in all cases. The psychic attitude was serene and very positive in 75% of cases. It was more conflictual and ambivalent because of various fears and anxieties in 25% of cases.

Obviously, given the gestational age, none of the patients had yet begun to follow a birth preparation course, but 21% had followed one in an previous pregnancy.

Fetal malformations were diagnosed in the course of an occasional ultrasound examination in 54% of cases; in 37% of cases amniocentesis was performed to determine the fetal karyotype because of advanced maternal age; and in 8% of cases, the diagnosis of homozygote B thalassemia was made as a result of the analysis of the fetal blood sampled by cordocentesis.

The decision to terminate the pregnancy was painful but firm. The induced abortion was faced by the patients with an anxiety level which was, on average, rather high. The termination was obtained by the use of prostaglandin; this induced labour and thus the expulsion of the fetus. So, the same mechanism envisaged for a normal delivery was set in motion.

The patients were asked to fill in the McGill Pain Questionnaire (MPQ) by Ronald Melzack in the 24 hours immediately following the induced abortion.

This was compiled by Melzack in 1971 to measure as precisely as possible both the total intensity of the pain and its sensorial, affective and evaluative dimensions[7].

The questionnaire consists of a list of 20 categories of terms describing pain. These are grouped in sub-classes which describe different aspects of the pain experience. Three groups of three adjectives each referring the temporal rhythms of the pain are added to this list and a group of five adjectives (with a score of 1 to 5) concern the total intensity of the pain itself.

The patients were asked to describe the pain by choosing one descriptive term for each of the 20 sub-classes, one of the 3 groups of adjectives for the time aspect and one of the 5 adjectives for the total intensity.

After its first appearance, the MPQ was translated into many languages. For this study, we used the Italian version prepared in 1989 by the Institute of Medical Psychology of the University of Rome, "La Sapienza"[8]. In this adaptation, every descriptive adjective has a scale value specifically obtained for Italians fol-

lowing the same procedure used by Melzack for Canadians. A visuo-analogic scale from 0 to 100 was added to the list of descriptive terms, and to the scale for the measurement of the temporal aspects and the total intensity. On this scale, patients can represent their perception of the global intensity of their pain.

The evaluation indices proposed by Melzack are as follows:

NWC: Number of Words Chosen. This is an index of validity inasmuch as we consider the test valid only if at least 10 descriptive words have been chosen. Besides, it is an index of affective participation, in the sense the higher the NWC the higher the participation.

PPI: Present Pain Intensity.

VAS: Visuo-Analogic Scale. This desribes the intensity of the pain present. In our study, it describes the global intensity of the pain which the patients remember feeling during labour and delivery.

PRI: Pain Rating Index. This is the total evaluation index which the patients make of their pain by summing its different dimensions. It is obtained by adding the scale values of the descriptive terms chosen. It is the result of the sum of the partial indices: of the Sensory PRI, obtained from the values of the first 10 sub-classes; of the Affective PRI, obtained from the values of the next 5 sub-classes; of the Evaluation PRI, obtained from the 16th sub-class; and of the Miscellaneous PRI, obtained from the values of the remaining four sub-classes.

The patients in the group studied by us underwent a guided interview before the administration of prostaglandin began and filled in the MPQ within 24 hours of the induced abortion.

The average values obtained by the group in the various indices were correlated with one another using Pearson's coefficient of correlation ($\alpha = 0.01$).

These average values were compared with those obtained using the same questionnaire filled in by 35 patients who had had normal pregnancies and term deliveries. The statistical significance of the differences between the averages of the two groups was evaluated using the t-test of Student ($\alpha = 0.01$).

Results

Once induction had begun, labour had an average duration of 5 hours and 36 minutes (sd = 3 h 16 m).

The graphic representation of the pain on the visuo-analogic scale (VAS) showed an average score of 74,79 (sd = 16.90).

The global intensity of pain (PPI) on a 5 point scale displayed an average of 3.62 points (sd = 1.13), 72.4% of the maximum intensity measurable.

With regard to the list of descriptive terms, an average of 14.25 (sd = 3.44) words (NWC) were chosen, equal to 71.25% of those available.

The average value of the PrI was 45.27 (sd = 16.73) corresponding to 52.4% of the maximum measurable pain. Sensory PRI had a score of 22.76 (sd = 9.13), equal to 52.5%.

Affective PRI reached a value of 9.81 (sd = 4.18), equivalent to 48.3%.

Evaluative PRI obtained a score of 3.57 (sd = 0.83), corresponding to 77.6%.

In particular the VAS, PI and Evaluative PRI indices, quoted in percentage values for easier comparison, obtained more or less equal percentages. This demonstates that the subjective global evaluation of pain was perceived with an above-average intensity (VAS = 74.79). This was described by the patients as rather horrible ("horrible" is an adjective corresponding to 4 points on the PPI scale), painful and particularly unpleasant (Evaluative PRI).

Total PRI has a different meaning derived from the combination of various dimensions of the pain experience and includes other aspects besides the evaluative one. In fact, we find in it the partial PRI, relative to the sensorial and affective categories, as well as the evaluative PRI already considered. Sensory PRI showed an average score of 22.7, equal to 52.5%, indicating that the intensity of the sensorial pain was average. Affective PRI had a score of 9.81, corresponding to 48.3% thus demonstrating an affective-motivational participation which was about average. Although the sensorial stimulation was averagely intense and the affective resonance averagely unpleasant, the global situation, at that moment and in that context, was subjectively perceived as rather intense and unpleasant as the Evaluative PRI shows.

Observing the coefficients of correlation, we find that the greater weight in determining the total PRI was given by the sensorial component (coeff. = 0.918). This was followed by the affective component (coeff. = 0.800). The contribution of the evaluative component (coeff. = 0.756) appears less; this demonstrates that the percentage value of the PRI, a multi-dimensional index, is lower compared to the VAS, the PRI and the Evaluative PRI which are global uni-dimensional indices.

The NWCm, with its average score of 14.25 descriptive terms, indicates an affective-motivational participation which is not very high. This agrees with the Affective PRI whose percentage value is rather average. In fact, the two indices have a statistically significant correlation (0.766).

Compared to the control group (see Table 1), the VAS, PPI, Affective PRI and Evaluative PRI indices display values which are rather similar to one another. The total PRI in normal labour (53.69; sd = 15.37) appears higher than in induced labour, but the difference between the average values does not reach statistical significance (t = 21.92).

Table 1.

	Induced labour		Normal labour		t-test
	Average	sd	Average	sd	
VAS	74.79	16.90	75.8	19.5	
PPI	3.62	1.13	3.34	0.93	
NWC	14.25	3.44	16.97	3.41	2.95*
S-PRI	22.76	9.13	28.9	7.65	2.67*
A-PRI	9.81	4.18	11.71	4.44	1.66
E-PRI	3.57	0.83	3.48	0.93	0.39
PRI	45.27	16.73	53.69	15.37	1.92

Sensory PRI in normal labour has a score of 28.9 which is significantly higher than that of induced labour (t = 2.95).

The average duration of normal labour was 5 hours and 12 minutes (sd = 2h50m), not significantly shorter than the average duration of induced labour.

Discussion

The fact of having chosen a greater or lesser number of terms from a list to describe something, is not without significance. To reply in a more detailed or more laconic manner is undoubtedly linked to a facet of one's personality, but it is also certainly linked to attitudinal reactions to certain situations. For this reason, independent of a basic tendency to be more or less talkative, it is easier in certain situations to close oneself if one does not wish to speak about it too much, almost as if one wanted to defend oneself from the emotions which accompany the words.

Certainly, the diagnosis of a serious fetal pathology, so serious as to decide to terminate the pregnancy, creates a grave crisis of self-esteem for both parents. The expected child, imagined as healthy, intelligent and agreeable; the child wich would have satisfied all the conscious and unconscious expectations of the parents, is no more. And not only that, another child, a sick child, is the bearer of serious problems for himself and for the whole family, an unwanted child in that sense, has arrived to cast doubts on the couple's capacity for healthy and normal procreation. To the sorrow for the loss of the desired child is added the sorrow of the threat to their self-esteem, to their identity as persons and to their sexual role. The abortive delivery places the malformed child at a distance and frees the patient (and the couple) from it, but, at the same time, it confirms her incapacity, at least this time, to manage a normal maternity.

It is understandable how in this state of mind the patients tend to place themselves emotively at a distance from the abortion and so they are more reserved, less expressive and less attentive to nuances and subtleties in describing the pains of labour and delivery at a later date.

Thus, if they chose a number of descriptive terms decidedly less than more chosen by patients with normal labour, this confirms the defence mechanisms used to avoid an affective involvement experienced as too painful.

In spite of this, the affective-motivational response, even if this is limited, does not appear less in terms of statistical significance than thas evoked by patients at term, as the values of Affective PRI in both groups show.

Women in induced labour experience sensorial pain stimulation certainly lower than that experienced in term labour since the fetus to be delivered is small for gestational age compared to a term fetus and so the dilation of the cervix necessary for delivery is less. In fact, in the descriptions of the two groups, the values of the sensorial aspects (Sensory PRI) were significantly less in patients with induced labour.

And yet, the emotive resonance which the sensorial stimulus, even if reduced, evokes, reaches almost the same intensity as in a term labour. Even though the patients try, on their own admission, to participate and to be involved as little as

possible in the abortion, their defence mechanisms are not sufficient to protect them completely from all their deepest emotions.

It is thus that in the estimation of the total experience of pain, this evaluation appears to be almost equal in both groups, for undoubtedly different conscious or unconscious reasons, all the patients end up by evaluating as remarkably intense the pain experienced, even though the point of departure is a sensorial stimulation which is quantitatively rather different.

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