

# The psychoemotional impact of ectopic pregnancy – the experience of our clinic

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## Abstract

**Introduction.** Women with ectopic pregnancy experience feelings of sadness, depression and guilt. This study aimed to identify and evaluate the psychoemotional impact on women who were diagnosed with ectopic pregnancy and need psychological counselling after such an experience. **Materials and method.** We studied 53 eligible women who were diagnosed with ectopic pregnancy and treated at the Bucur Maternity, Bucharest. The patients completed a questionnaire with 28 questions. **Results.** The maximum incidence of ectopic pregnancy was between 26 and 30 years old. Regarding emotional disturbance, most patients (56.8%) experienced irritability, 41.1% had depression, 31.3% mentioned insomnia, and 21.5% felt guilty. The results showed that the highest incidence of depression was in patients who already had a child (52.4%). The patients were asked about their feelings when they were diagnosed with ectopic pregnancy, and most of them (77.4%) felt sad. Drug treatment had an impact on half of the interviewed women (55%). We tried to find if the patients needed or searched a psychological counselling session. The results indicated that 81.1% of them didn't see a psychologist. **Conclusions.** According to our study, patients were psychoemotionally affected by the ectopic pregnancy. Most of them did not seek help from a psychologist. **Keywords:** ectopic pregnancy, psychological issues, emotional disturbance, psychological counselling

## Rezumat

**Introducere.** Studiul de față a avut drept scop identificarea și evaluarea impactului psihoemoțional al femeilor care au fost diagnosticate cu sarcină ectopică, dar și nevoia de consiliere psihologică după această experiență. **Materiale și metodă.** Am analizat 53 de paciente care au fost diagnosticate și tratate pentru sarcină ectopică la Maternitatea Bucur, București. Pacientele au completat un chestionar alcătuit din 28 de întrebări. **Rezultate.** Incidența maximă a sarcinii ectopice a fost înregistrată la grupa de vârstă 26-30 de ani. În ceea ce privește impactul emoțional, majoritatea pacienților (56,8%) au spus că au avut stări de nervozitate, 41,1% au avut stări depresive, 31,1% au avut insomnii, iar 21,3% sentimente de vinovăție. De asemenea, rezultatele au arătat că incidența cea mai mare a depresiei a fost la grupul pacienților care aveau deja un copil, respectiv 52,4%. Pacientele au fost întrebat despre sentimentele pe care le-au avut la aflarea diagnosticului și majoritatea lor (77,4%) au răspuns că au fost triste. Trăamentul medicamentos a avut un impact psihoemoțional la aproximativ jumătate din ele (55%). Am încercat să aflăm dacă pacientele au avut nevoie sau au căutat ajutorul unui psiholog, iar rezultatele au arătat că 81,1% nu au apelat la ședințe de consiliere psihologică. **Concluzii.** Conform studiului nostru, paciențele cu sarcină ectopică au fost afectate psihoemoțional de acest diagnostic. Majoritatea nu au încercat să apeleze la ajutorul unui psiholog. **Cuvinte-cheie:** sarcină ectopică, afectare psihologică, tulburări emoționale, consiliere psihologică

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## Impactul psihoemoțional al sarcinii ectopice – experiența clinicii noastre

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## Introduction

Pregnancy and childbirth are sensitive periods in women, but also in a couple's life. It implies a lot of physiological, emotional and behavioural changes and adaptations mainly from the woman's point of view. Whenever the process is successfully ending with a healthy mother and child, the impact – mainly the psychological one – is positive, giving the sense of fulfilment. But in some cases, the pregnancy is lost from different reasons, including an ectopic pregnancy situation that can also trigger negative changes of the psychoemotional well-being of the women<sup>(1,2)</sup>.

Besides the emotional impact of the pregnancy loss, there is also the legitimate worry about the mother health, life and fertility outcome. In most ectopic

pregnancies, the right medical decision is mandatory to remove the pregnancy because the mother's life could be in danger. At that moment, the ethical and emotional part of the medical profession faces difficult decision based on the risks/benefits approach<sup>(3)</sup>.

Several studies have shown that women who had a miscarriage for whatever reason, or an ectopic pregnancy, are prone to feelings of sadness, depression and guilt. Depression is associated with the loss of a desired pregnancy, the worry for the future pregnancy and for the mother's health<sup>(4)</sup>.

This study aimed to identify and evaluate the psychoemotional impact on women who lost a pregnancy due to ectopic implantation behaviour, and the need

for psychological counselling after such an experience. Those women were often overlooked whenever such issues occurred and their loss and grief were not properly addressed in our culture.

## Materials and method

We conducted a prospective cohort study in 2020 at the Bucur Maternity, Bucharest. A group of patients diagnosed in our unit with ectopic pregnancy, between January 2015 and February 2020, was analyzed.

The inclusion criteria were: confirmed ectopic pregnancy, biochemical, by ultrasound or clinical, irrespective of the treatment mode, willing to answer the questions, and over 18 years old.

The exclusion criteria were: minor patients, suspected ectopic pregnancies without case outcome, patients who denied participation in the study.

The patients who met the inclusion criteria of the study were contacted by phone. Out of a total of 101 patients, 53 were eligible and wanted to answer to our queries. We applied a questionnaire consisting of 27 questions divided into three sections.

The first part consisted in general demographic information from which we collected age, number of children, marital status and education level.

The second part consisted of questions related to risk factors for ectopic pregnancies, such as smoking, genital infections, pelvic surgeries, endometriosis, ectopic pregnancy history etc.

The third part included questions about the women's mental health, emotions before and after they lost the pregnancy, and the need for a psychologist, for issues such as insomnia, feelings of guilt, depression, irritability, suicidal thoughts, sadness, the need for psychological counselling etc.

The study was approved by the Ethical Comitee of the hospital.

The database, the statistical analysis of collected information, and the graphs were elaborated by using IBM SPSS Statistics version 25.0.

## Results

A number of 53 patients diagnosed with ectopic pregnancy could be contacted by phone and agreed to answer our questionnaire. Concerning the issues related to marital status, 67.9% of the patients were married, 20.7% were divorced, and the percentage of unmarried was 11.3%.

Regarding their educational level, 15% of women graduated the primary school, 28.3% graduated the high school, and 56.7% had higher education.

The distribution by age groups showed that the maximum incidence of ectopic pregnancy belongs to the age range of 26-30 years old, while the lowest incidence is found in the age range of 41-45 years old. Regarding the number of children, 56.6% of women with ectopic pregnancy had already a child.

Furthermore, we analyzed the risk factors using the questionnaire. We found out that most of them were smokers (64.1%), that 20.7% of women had been diagnosed with genital infections such as *Neisseria gonorrhoeae* or *Chlamydia trachomatis*, that 7.5% of them had been diagnosed with endometriosis, and that 30.1% had pelvic surgery before ectopic pregnancy.

Regarding the emotional disturbance, Figure 1 illustrates the women's feelings after the treatment for ectopic pregnancy. Most of the patients (56.8%) experienced irritability, 41.1% had depression, 31.3% mentioned insomnia, and 21.5% had feelings of guilt. On the other hand, a very small percentage (1.9%) had suicidal thoughts after this event.

We compared the incidence of depression after ectopic pregnancy treatment in patients with or without children. The results showed that the highest incidence

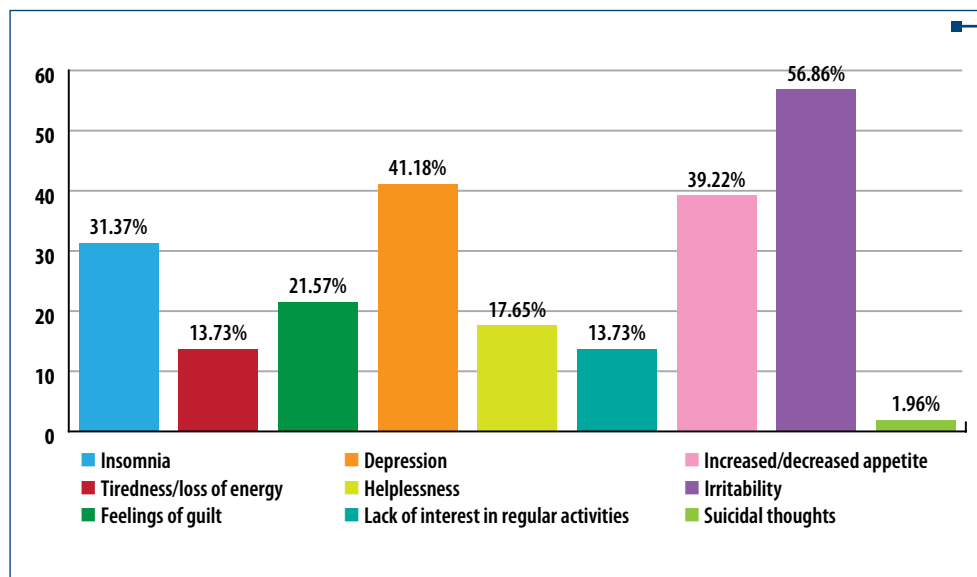


Figure 1. Feelings after the treatment for ectopic pregnancy

of depression was found in patients who already had a child, respectively 52.4% of them answered that they had depressive states after pregnancy loss due to ectopic pregnancy because they wanted a second offspring. It also seems that those who had three or more children got over the episode more easily.

The patients were asked about their feelings when they were diagnosed with ectopic pregnancy. Figure 2 shows that most of them (77.4%) felt sad. Other feelings described by women were anxiety (49.1%), emotional pain (49.6%) and fear (56.6%). Given all these, it seems that a psychoemotional impact appeared since they found out about the diagnosis.

In the study, we also analyzed the psychoemotional impact in correlation with the treatment method (Figure 3). The statistical analysis of the answers given by

patients showed that drug treatment had little impact on the psychoemotional status (55% of the patients). On the other hand, patients who underwent surgery appreciated that the treatment for removal of the ectopic pregnancy had affected them a lot from a psychological point of view (42.1% of them).

We tried to find out if the patients needed or looked for psychological counselling. The results indicated that 81.1% of them didn't see a psychologist, although they answered at previous questions that they were emotionally affected by ectopic pregnancy. Only 11.3% of them solicited a specialised psychological support. The underlying reason for not searching specialised psychological support differed, thus 70.2% of the patients considered it unnecessary and 12.7% had no financial possibilities. Moreover, 86.8% answered that they relied on family support, so they did not need a psychologist.

At the end of the questionnaire, we analyzed if patients desire a new pregnancy in the future, and 32 out of 53 patients said that they plan having a new pregnancy in the future, while 21 of them said they didn't want children anymore after the ectopic pregnancy experience.

### Discussion

In our study, the most expressed feelings associated with ectopic pregnancy were emotional pain, anxiety, depression and fear. Among the feelings experienced by women after ectopic pregnancy treatment, practically after they have lost the desired pregnancy, there are depression, feelings of guilt and insomnia. All these states could be associated with psychological trauma of the women surveyed. It means that ectopic pregnancy leaves not only a physical imprint, but also an emotional one that should not be missed<sup>(5)</sup>. Several studies have shown the same thing: women who have gone through a miscarriage, including an ectopic pregnancy, are prone to feelings of sadness, depression or guilt<sup>(6)</sup>.

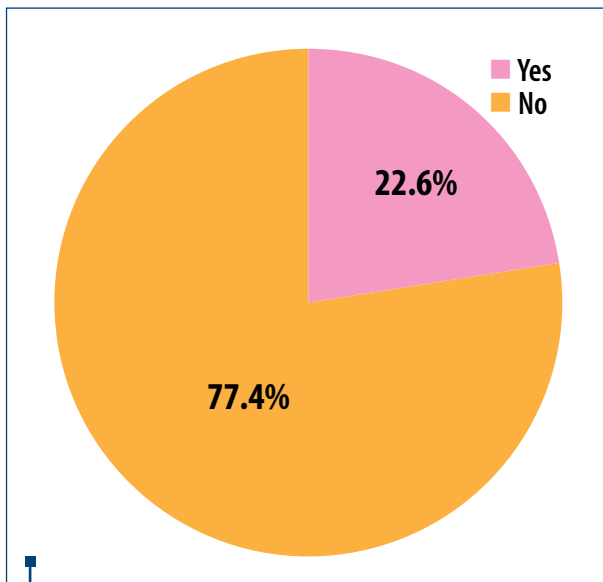


Figure 2. Sadness

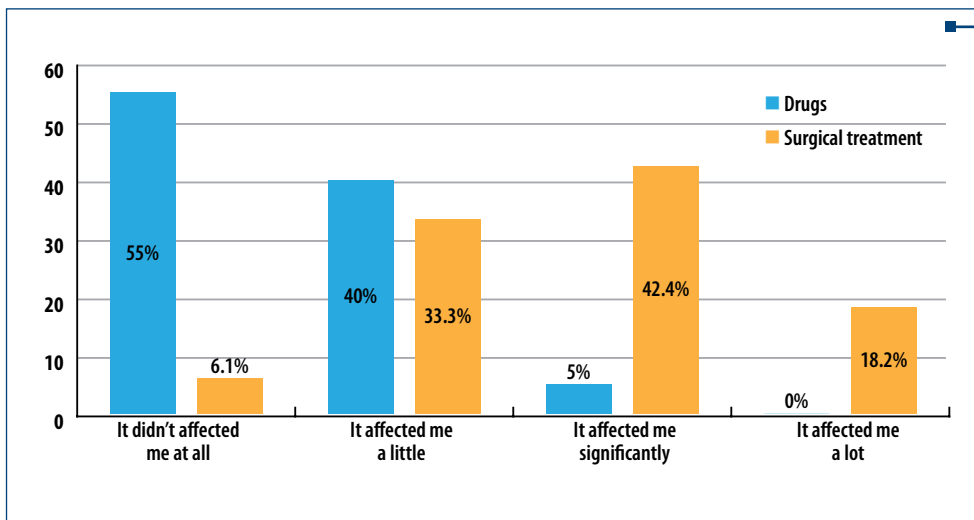


Figure 3. The psychological impact of ectopic pregnancy treatment depending on its type

A prospective study published in 2016 and led by Faren et al. in London, on a group of 186 women, showed that most of them who had an ectopic pregnancy or abortion had specific symptoms for PTSD (post-traumatic stress disorder – a psychological response developed following a threat of death or injury). In the context of ectopic pregnancy, patients experience psychological trauma due to the subjective perception of the need for induced abortion, also due to bleeding or if they see foetal tissue.

The same study showed that women with ectopic pregnancy experienced associated symptoms with the psychoemotional impact, such as high levels of emotional stress, anxiety and depression, as evidenced by the present study<sup>(7)</sup>. The same feelings were described by the women in the group that we analyzed.

Another study led by Lok et al., presented in 2004, also highlighted the psychological impact of losing a pregnancy. An important point of the study was that the age ranges most affected by depression after the removal of ectopic pregnancy were 26-30 years old and 36-40 years old<sup>(8)</sup>. Our data are concordant with this paper, and we also found that the maximum incidence of ectopic pregnancy belongs to the same age range (26-30 years old).

Based on studies, post-traumatic stress is associated with pain and anxiety in the context of physical injuries. Symptoms such as nightmares, insomnia, inhibition of feelings, anxiety, irritability, concentration problems occur as a result of obstetric complications or miscarriage<sup>(9,10)</sup>. We demonstrated in our study that 31.3% of patients had insomnia, and 56.8% of them had states of irritability.

The present study reveals that surgery amplifies the psychological trauma, in addition to the emotional shock suffered by patients when hearing the bad news that the desired pregnancy was no longer viable. Opposite study results were published in 1996 when Nieuwkerk et al. analyzed the impact of treatment performed for ectopic pregnancy in terms of patient's quality of life. A questionnaire measuring the patient's quality of life after drug treatment with methotrexate or laparoscopic procedure was used to collect data. The study demonstrated that patients treated with methotrexate were more affected by the treatment than those who underwent laparoscopic salpingectomy, as evidenced by the fact that these patients experienced symptoms more frequently after taking methotrexate and had more depressive symptoms<sup>(11)</sup>.

Regarding psychological counselling, a study conducted in Denmark on a group of 1813 patients showed that 8.6% of women experienced severe depression after losing their desired pregnancy, and 42.1% had a high stress level. The care of these patients involved frequent ultrasounds investigations during subsequent pregnancies, mental stress assessment, and psychological counselling<sup>(12)</sup>. Most of the patients enrolled in our study (81.1%) reported that they did not go to a psychologist, even though they felt emotionally affected by the experience with ectopic pregnancy.

The impact of the pregnancy loss, including an ectopic pregnancy, is determined by a lot of factors, among which education, age, cultural and social determinants, religion and marital status can be listed. Unfortunately, in our society the burden of such events is often overlooked from the psychological point of view and we do not dispose of sufficient studies in Romania that address such issues.

After an ectopic pregnancy, several factors can influence the future pregnancies and the patient's fertility, which could decrease considerably due to injuries to the uterine tubes. Studies showed that women wearing intrauterine devices at the time of ectopic pregnancy have a better prognosis in terms of fertility after treatment<sup>(13)</sup>. Because ectopic pregnancy affects fertility, more and more couples who want a baby choose *in vitro* fertilization, but even this method could fail due to the emotional stress that pregnant women go through. The stress generated by the ectopic pregnancy and the complexity of the *in vitro* treatment lead to complications for the new pregnancy and even to its loss. Also, stress before a new conception could increase infertility. Unfortunately, many women affected by ectopic pregnancy, with psychoemotional problems (anxiety, depression, post-traumatic stress disorders) and infertility, do not receive psychological counselling prior to assisted reproductive procedures<sup>(14)</sup>.

Our study limitations consist in the small number of patients recruited and in the non-standardized questionnaire applied. We aimed to raise awareness for the healthcare providers to take into consideration those aspects at the level of medical services and to develop networks and guidelines for emotional and psychological support.

Screening for psychological risk is important for all women who lose a pregnancy, including those who are going through an ectopic pregnancy. The screening could be done by using various questionnaires applied to patients for psychological and emotional impact, scales and scores for depression, anxiety and other negative emotions that appeared after the loss of pregnancy<sup>(15)</sup>.

## Conclusions

Currently, there are few studies on the psychoemotional impact of ectopic pregnancy, most of them regarding the psychoemotional impact of losing a pregnancy, but they are not specific for ectopic pregnancy. In this study, the majority of the patients developed states of irritability. Depression also had a high share, as well as insomnia. Regarding the feelings at the time of diagnosis, the patients felt sadness, anxiety and emotional pain because they wanted that pregnancy. Most patients did not seek help from a psychologist, the main reason being that they did not consider it necessary. ■

**Conflict of interests:** The authors declare no conflict of interests.

## Questionnaire

### A. Demographic information

1. What is your name? .....
2. How old are you? .....
3. What is your marital status?

|          |  |
|----------|--|
| Single   |  |
| Married  |  |
| Divorced |  |
| Widow    |  |

4. Which is your educational level?

|                      |  |
|----------------------|--|
| Primary school       |  |
| High school          |  |
| University           |  |
| I did't go to school |  |

5. Do you have children? If the answer is yes, how many? .....

### B. Risk factors for ectopic pregnancy

1. Are you a smoker? .....
2. How many sexual partners did you have before the ectopic pregnancy? .....
3. Did you try *in vitro* fertilization? .....
4. Did you undergo pelvic surgery before the ectopic pregnancy? .....
5. Did you have *Neisseria gonorrhoeae* or *Chlamydia trachomatis* infections? .....
6. Did you have ectopic pregnancy before? .....
7. Were you diagnosed with endometriosis? .....

### C. Psychoemotional impact

1. Did you have pelvic pain? If the answer is yes, what was its intensity?

|     |          |        |      |             |
|-----|----------|--------|------|-------------|
| Low | Bearable | Medium | High | Very strong |
|     |          |        |      |             |

2. Did you have vaginal bleeding? If the answer is yes, what was its intensity?

|                |                 |                   |
|----------------|-----------------|-------------------|
| Light bleeding | Medium bleeding | Abundant bleeding |
|                |                 |                   |

3. How the diagnosis was made?

|                             |            |                    |                       |
|-----------------------------|------------|--------------------|-----------------------|
| Clinical exam and anamnesis | Ultrasound | HCG-hormone dosing | All the three methods |
|                             |            |                    |                       |

4. What type of treatment did you follow?

|                          |         |
|--------------------------|---------|
| Pharmaceutical treatment | Surgery |
|                          |         |

5. Did you experience one or more of these symptoms after treatment?

|          |      |                 |           |          |              |            |
|----------|------|-----------------|-----------|----------|--------------|------------|
| Bleeding | Pain | Nausea/Vomiting | Dizziness | Diarrhea | Fatigability | Infections |
|          |      |                 |           |          |              |            |

6. Once you have been diagnosed with an ectopic pregnancy, have you experienced one or more of the following feelings?

| Sadness | Anxiety | Fear | Pain |
|---------|---------|------|------|
|         |         |      |      |

7. How much did the treatment you received for ectopic pregnancy affect you?

| Not at all | Very little | A little | A lot | Very much |
|------------|-------------|----------|-------|-----------|
|            |             |          |       |           |

8. After following the treatment, have you experienced one or more of the following symptoms?

| Insomnia | Tiredness/<br>Loss of energy | Guilt feelings | Depression | Helplessness | Loss of interest<br>for usual<br>activities | Increased/<br>decreased<br>apetite | Irritability | Suicidal<br>thoughts |
|----------|------------------------------|----------------|------------|--------------|---|------------------------------------|--------------|----------------------|
|          |                              |                |            |              |   |                                    |              |                      |

9. When you went through this difficult period, did you feel that you had the family/partner support? Or you felt that you had to deal with this situation alone .....

10. How would you evaluate the medical staff that took care of you?

| Inexistent | Low | Well | Very well |
|------------|-----|------|-----------|
|            |     |      |           |

11. What did affect you mostly in this experience?

| When I heard the diagnosis | The treatment that I followed | The symptoms that I had before<br>knowing the diagnosis | The behaviour of medical staff |
|----------------------------|-------------------------------|---|--------------------------------|
|                            |                               |   |                                |

12. Do you think that all this experience drastically changed your behaviours? If the answer is yes, in which of the following situations you find yourself?

| I am anxious now | I am afraid of the hospital | I exaggerate any pain | I am afraid of another pregnancy |
|------------------|-----------------------------|-----------------------|----------------------------------|
|                  |                             |                       |                                  |

13. After performing treatment for ectopic pregnancy, did you seek help from a psychologist or did you have this intention? .....

14. If the answer is no, then which is the reason?

| I didn't need psychological<br>counselling | I didn't know where<br>or how to seek help | I was afraid to go<br>to the psychologist | I didn't believe it could help | Lack of money |
|--|--|---|--------------------------------|---------------|
|  |  |   |                                |               |

15. In the future, do you still wish to have children? .....

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