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Anxiety scale in surgical abortions and drug-induced abortions: A comparative study

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ABSTRACT

Introduction. It is well known that many events during life can be stressful events, specifically events related to health. Abortion is an event that represents a robust risk factor for the development of anxiety symptoms. Induced abortions occur for many reasons, including genetic defect, missed abortion, various diseases of the mother, trauma etc. The impact of abortion (as stressful life events) in the etiology of anxiety disorders has been described in the literature. Anxiety disorders are defined as excessive worry or fear and tension about everyday events and problems or for any sudden stressful life events. Anxiety levels are typically classified into four categories: mild, moderate, severe and panic level anxiety.

Objective. The primary objective of the study was to determine the anxiety scale before an induced abortion.

Materials and methods. This is a cohort study. The study was conducted at the University Clinical Center of Kosovo, a tertiary care hospital. 189 women participated in the study waiting for abortions. The women were divided into two groups; 87 women designated for surgical abortion and 102 for drug-induced abortion. Both groups were assessed separately for presence and degree of anxiety. To evaluate these two parameters were used Hopkins Symptoms Checklist (HSCL-25). Only the first 10 HSCL-25 questions were used to assess the presence and anxiety scale. The anxiety scale was measured before the abortion. The primary outcome measures studied were the incidence of abortions, the average maternal age, type of induced abortion, presence of anxiety, and anxiety scale.

Results. During the study period in our clinic, 1376 pregnant women were hospitalized, out of which 189 cases for abortion. The incidence rate of abortions was 13.7 per 1000 women aged 15-44 years. Of these 189 cases for abortion in both groups, 110 women or 58.2% had anxiety. The mean age of patients was 28.76 ± 6.2 years. Out of 110 cases that experienced anxiety during an induced abortion; 78.2% (86 cases) had mild anxiety, 19.1% (21 cases) moderate anxiety, and 2.7% (3 cases) severe anxiety. A comparison was made between the two groups, and it turned out those women with surgical abortions had a relative risk (RR) OF 1.5 times higher to experience anxiety during abortion procedures than not even women with drug-induced abortions. Anxiety was experienced by women in the form of phobias. Women who underwent surgical abortion mostly had phobias such as; phobia by uncontrollable bleeding (31.7%), followed by phobia by surgical abortion procedures (27%), phobia associated with anesthesia (14.3%), while women who underwent drug-induced abortion mostly had phobias by phobia associated with abortion failure, and likelihood for surgical abortion (44.7%), followed by phobia for developing infections (31.9%) etc.

Conclusions. The results of this study show that the incidence of abortions was 13.7 per 1000 women aged 15-44 years. Regardless of the method of abortion, 58% of women experienced anxiety during the abortion procedure. Of these, 78% had low levels of anxiety, 19% moderate and 3% severe anxiety. Findings from our analysis show that women who had abortions with surgical abortions experienced 1.5 times more anxiety than women with drug-induced abortions.

Keywords: surgical abortions; drug-induced abortions; anxiety scale; incidence rate; HSCL-25

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INTRODUCTION

According to the World Health Organization, abortion is defined as the spontaneous loss of a pregnancy before the 22th week of gestation. When an abortion occurs spontaneously, in which case it is called a spontaneous abortion or miscarriage, but when it happens for different purposes, in which case it is called an induced abortion. In different countries, the abortion rate is different. But generally, statistics show that 10-15% of clinically recognized pregnancies (or early pregnancies) end in abortion [1].

Approximately, ninety per cent of abortions occur before the end of the first trimester (or before 8 weeks), making abortion one of the most common surgical procedures in most countries [2].

Miscarriage occurs for many reasons, including genetic defect, missed abortion, various diseases of the mother, trauma, etc. Induced abortions may be performed for many reasons such as: to prevent the birth of a child with a serious deformity, mental deficiency, or genetic abnormality; to prevent the completion of a pregnancy that has resulted from incest or rape; to preserve the life or physical or mental well-being of the women and for social-economic reasons. The impact of abortion (as stressful life events) in the etiology of anxiety disorders has been described in the literature. Anxiety disorders are defined as excessive worry or fear and tension about everyday events and problems or for any sudden stressful life events. This condition is characterized by excessive, difficult to control, persistent, and unrealistic worry about everyday things [3]. Phobia or fear and excessive worry are the central features of anxiety disorder [4-6]. The causes of anxiety disorders are uncertain, but there is evidence that biological factors, family background, and life experiences, particularly stressful ones, play an important role. The exact pathophysiological mechanism is not entirely known.

Many authors believe that low serotonin system activity and elevated noradrenergic system activity are responsible for anxiety development [3]. Anxiety disorders are a cluster of mental disorders which are classified into four categories; social anxiety disorder (social phobia), generalized anxiety disorder, panic disorder and post-traumatic stress disorder.

Anxiety levels are typically classified into four categories: mild anxiety, moderate anxiety, severe anxiety and panic level anxiety. Various screening tools are used to identify the presence and severity of anxiety. Hopkins Symptoms Checklist (HSCL 25) is a well-known and widely used screening instrument. This instrument is a rapid screening tool for the presence of a clinically significant anxiety disorder (as generalized anxiety disorder, panic disorder, social phobia, or post-traumatic stress disorder), and also measures the severity of anxiety.

Most countries, in addition to the law prohibiting abortions, have developed strategies for health education and promotion aimed at encouraging women to protect against unplanned pregnancies, to influence the reduction of the induced abortions rate, and indirectly to prevent the short and long-term consequences of abortion, including those of mental health.

MATERIALS AND METHODS

This is a cohort study. The primary objective of the study was to determine the anxiety scale before an induced abortion. This study was conducted at the University Clinical Center of Kosovo after the approval of the ethical committee. 189 women participated in the study waiting for abortions. All participating women signed informed consent forms and completed baseline assessments. They were divided into two groups; 87 women designated for surgical abortion (D&C) and 102 for drug-induced abortion. Both groups were assessed separately for their presence and degree of anxiety. To evaluate these two parameters, a well-known and widely used screening instrument was used called Hopkins Symptoms Checklist (HSCL-25). Only the first 10 HSCL-25 questions were used to assess the presence and anxiety scale. The anxiety scale was measured before the abortion by using an anxiety scale from 0 (mild anxiety) to over 1.75 (severe anxiety).

Before women underwent the questionnaire, organic causes that could contribute to the development of anxiety were excluded (through thyroid function tests, blood glucose levels, echocardiography etc.). It was reviewed as well past medical history, including psychiatric conditions, trauma, and narcotic substance abuse.

The primary outcome measures studied were the incidence of abortions, the average maternal age, type of induced abortion, presence of anxiety, and anxiety scale.

Data were entered in an MS Excel spreadsheet and a software program (MedCalc) was used for all analyses. For categorical variables, data was compiled as frequency and percentage. For continuous variables, the data were calculated as Mean ± SD.

RESULTS

During a two-month analysis in our clinic, 1376 pregnant women were hospitalized, out of which 189 cases for abortion. The incidence rate of abortions was 13.7% or 13.7 per 1000 women aged 15-44 years. The women were divided into two groups; 87 women wanted to end their abortion with surgical abortions (group I), while 102 women wanted to end their abortion with drug-induced abortion (group II). Both groups were assessed separately for their presence and degree of anxiety. To evaluate

these two parameters, a well-known and widely used screening instrument was used called Hopkins Symptoms Checklist (HSCL 25).

Of these 189 cases for abortion in both groups, 110 women or 58.2% had anxiety. The mean age of patients was 28.76 ± 6.2 years. 78.2% (86 cases) had mild anxiety, 19.1% (21 cases) moderate anxiety, and 2.7% (3 cases) severe anxiety (Table 1).

TABLE 1. Anxiety scale by screening instruments HSCL-25, for both groups

No.	Anxiety scale	Number of cases	Percentage
I	0-0.4 Mild	86	78.2
II	0.5-1.75 Moderate	21	19.1
III	>1.75 Severe	3	2.7
Total		110	100%

A comparison was made between the two groups, and it turned out those women with surgical abortions had a relative risk (RR) OF 1.5 times higher to experience anxiety during abortion procedures than not even women with drug-induced abortions (Table 2).

TABLE 2. Presence of anxiety, the difference between the two groups

The presence of anxiety	Women with surgical abortions No. of cases	Women with drug-induced abortion No. of cases	Relative risk (95% CI)	p-Value
With anxiety No anxiety	63 24	47 55	1.57 (1.22 to 2.01)	P= 0.0003

Many stressful events affected the manifestation of anxiety. Anxiety was experienced by women in the form of phobias. Women who underwent surgical abortion mostly had phobias such as; phobia by uncontrollable bleeding (31.7%), followed by phobia by surgical abortion procedures (27%), phobia associated with anesthesia (14.3%), while women who underwent drug-induced abortion mostly had phobias by phobia associated with abortion failure, and likelihood for surgical abortion (44.7%), followed by phobia for developing infections (31.9%) etc. (Table 3).

DISCUSSIONS

In Kosovo, during this study period, the incidence rate of abortions was 13.7 per 1000 women aged 15-44 years, a difference of 2.3% from the incidence rate of abortions in the United States reported by the CDC for the 2018 year [7]. Informing a country of abortion rates is of particular importance because it helps create programs and policies to reduce the number of abortions and protect women's health in that country.

In our study, of these 189 cases for induced abortion, 110 women or 58.2% had anxiety disorders. In different studies, the degree of anxiety in women who perform induced abortion has an extended percentage range (so, it is different) [8]. Coleman et al. reported a range of different percentages of anxiety disorders ranging starting from 44% to 95% for women who had performed induced abortions [9,10]. In our study, the mean age of patients was 28.76. 6.2 years, a meta-analysis published in 2017, which included 24 studies, reports a mean age of patients with anxiety disorder, between 21.1 and 34.9 years [11]. Out of 110 cases that experienced anxiety during an induced abortion; 78.2% (86 cas-

TABLE 3. Stressful events and the type of phobias that women experienced during abortion procedures

Type of phobia and stressful events	The stressful events associated with surgical abortions N and (%)	Type of Phobia and Stressful events	Stressful events associated with drug-induced abortion N and (%)
Phobia associated with medical staff	2 (3.3%)	Phobia associated with abortion failure, and likelihood for surgical abortion	21 (44.7%)
Phobia associated with gynecological examination table	3 (4.7%)	Phobia for developing infections	15 (31.9%)
Phobia by parenteral therapy or injections	7 (11.1%)	Phobia by residual in the uterine cavity of placental tissue	7 (14.9%)
Phobia associated with anesthesia (is it working well, or not)	9 (14.3%)	Phobia associated with future infertility problems	4 (8.5%)
Phobia by surgical abortion procedures (such as dilation and curettage)	17 (27.0%)		
Phobia by uncontrollable bleeding	20 (31.7%)		
Phobia for developing infections, and complications from abortion	5(7.9%)		
Total	63 (100%)		47 (100%)

es) had mild anxiety, 19.1% (21 cases) moderate anxiety, and 2.7% (3 cases) severe anxiety. Since most women with induced abortions had mild anxiety levels, they did not receive any treatment, while women with moderate and severe anxiety received treatment in consultation with a psychiatrist. The basis of therapy for anxiety disorders is cognitive behavioral therapy and pharmacotherapy (as; selective serotonin reuptake inhibitor and serotonin-norepinephrine reuptake inhibitor etc.) [12-17].

Many stressful events in life can have an impact on the development of anxiety disorders. Induced abortion is considered an independent risk factor in anxiety disorders. In our study, women with surgical abortions had a relative risk (RR) of 1.5 time's higher experience of anxiety during abortion procedures than not even women with drug-induced abortions. Before starting abortion procedures, anxiety was experienced by women in the form of phobias. The phobias they experienced before the abortion was realistic events and related to the possible complications that could come as a result of the abortion. Women who underwent surgical abortion mostly had phobias such as; phobia by uncontrollable bleeding, followed by phobias by surgical abortion procedures, phobia associated with anesthesia, while women who underwent drug-induced abortion mostly had phobias associated with abortion failure, and likelihood for surgical abortion, followed by phobia for developing infections etc. It is a fact that stressful events in life are associated with anxiety, especially events related to health. Fortunately, in most cases, they experience a mild degree of anxiety and do not need drug treatment, and pass on this state of anxiety spontaneously.

CONCLUSIONS

The results of this study show that the incidence of abortions was 13.7% or 13.7 per 1000 women aged 15-44 years. Regardless of the method of abortion, 58% of women experienced anxiety during the abortion procedure. Of these, 78% had low levels of anxiety, 19% moderate and 3% severe anxiety. Findings from our analysis show that women who had abortions with surgical abortions experienced 1.5 times more anxiety than women with drug-induced abortions. Anxiety was experienced by women in the form of phobias. The phobias they experienced before the abortion was realistic events and related to the possible complications that could come as a result of the abortion. Women who underwent surgical abortion mostly had phobias such as; phobia by uncontrollable bleeding, followed by phobia by surgical abortion procedures, phobia associated with anesthesia, while women who underwent drug-induced abortion mostly had phobias associated with abortion failure, and likelihood for surgical abortion, followed by phobia for developing infections.

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