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ABSTRACT

Objective: To highlight the clinical problem of antenatal depression.

Method: A brief literature search was done to write a short review. The search was conducted in the databases like PubMed for the articles discussing the association of pregnancy with major depression. The search for this short review was conducted from January 2015 to February 2015, in California, USA with an intention to highlight the already established association of major depression with pregnancy.

Result: Pregnancy is associated with various psychiatric problems. Major depression is the most common of all the psychiatric problems seen in pregnancy.

Conclusion: Because many symptoms during pregnancy are easily confused with major depression. It is very easy to misdiagnose. The wrong diagnosis or a missed diagnosis of depression are equally harmful to the maternal and fetal health. Therefore, it is recommended that appropriate measures like assessment and screening tools plus education should be taken by the hospitals in order to help gynecologists to be able to differentiate major depression from the normal symptoms of pregnancy.

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Keywords: Depression; Pregnancy; Antenatal Depression; Major Depression; Post-natal Depression

1. Introduction:

"Doctor, I can't sleep, I feel sad! I'm worried about how will I be able to take care of my child with my anger outburst. My lack of energy and mood swings always make me upset with my upcoming life events" This kind of statement is one of the most overheard statements, by a pregnant patient, presenting to primary care physician if she has HMO or an obstetrician or gynecologist if she has PPO insurance. Pregnancy has some well-known common physical symptoms. However, it also manifests with some psychological adaptations like mood swings, irritation, anger and sleep difficulties (D'Anna-Hernandez et al., 2016; Haakstad et al., 2016). Some women also complain of fatigue (Haakstad et al., 2016). Thus it becomes very confusing for the attending obstetrician-gynecologist and primary care physician to detect if the symptoms are related to pregnancy or they are the manifestations of clinical depression. Often, normal pregnancy symptoms are

confused with depression and the patient is initiated on medications for clinical depression. Therefore, it is imperative for the clinicians in the 21st century to have some basic insight of psychiatric symptoms especially for major depression in order to correctly diagnose the illness and differentiate between the symptoms of major depression from the psychological manifestations of normal pregnancy. This is essential because an inaccurate diagnosis can be disastrous not only for the mother but also for the unborn child.

According to DSM-V, which published by American Psychiatric Association, (2013). Major depression is defined as "Five (or more) of the following symptoms have been present during the same 2- week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). In children and adolescents, can be irritable mood, depressed mood can be markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others), significant weight loss when not dieting or weight gain (e.g., a change of more than 5 percent of body weight in a month), or decrease or increase in appetite nearly every day. Note: In children, consider failure to make expected weight gains. Insomnia or hypersomnia nearly every day, psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down), Fatigue or loss of energy nearly every day, Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely selfreproach or guilt about being sick), Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others), Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

The symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning, the symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hypothyroidism) (DSM-V).

It is a well-known fact that pregnant women are prone to major depression (Baskin et al., 2015), which is due to psychological or pregnancy hormonal changes induced phenomenon. The antenatal depression has also become as an economic burden for the patients and the hospitals in the recent times (Bauer et al., 2016). As already discussed, due to the lack of awareness, the diagnosis of depression could be missed in a pregnant patient or the normal psychological symptoms of pregnancy (when the patient did not actually have depression) could be misdiagnosed as depression and treated, which could be deleterious for the woman and her fetus (Zhong et al., 2015). Therefore, authors attempt to write this short review about the basic knowledge of depression for the non-psychiatric clinicians which will help them diagnose the symptoms correctly and will be useful in educating them on the harmful consequences of the misdiagnosis.

2. Materials and Methods:

The search for this short review was conducted from January 2015 to February 2015, in California,

the USA with an intention to highlight the already established association of major depression with pregnancy.

A short review of published literature was conducted in PubMed, Embase, MEDLINE, Science Citation Index, American Journal of Psychiatry, Journal of Psychiatric research, Psych Info. No date restrictions were used. Article relevant to major depression in pregnancy were included. Keywords included antenatal depression, psychiatric disorders in pregnancy, major depression, postpartum depression, and depression and fetus.

Selected articles were reviewed to identify additional articles that may have been missed by the keyword search. In total, over 300 articles were initially reviewed which fulfilled the eligibility criteria for antenatal depression particularly major Depression and pregnancy. In the end, 21 articles were selected for the review which we felt, mentioned a proper association of depression with pregnancy. In total, numerous articles are written in various journals. Thus, for this kind of short review these 21 selected articles were sufficient to provide enough information about a possible association of depression with pregnancy.

3. Results and Discussion:

3.1. Ante-natal depression a common clinical problem By far the most common psychiatric comorbidity in pregnant women is major depression. According to an estimate, around 13.5% pregnant women are clinically depressed in their second trimester and 10.1% in their third trimester (e Couto et al., 2016; Evans et al., 2001).

The overall percentage of pregnant women with psychiatric comorbidities range from 13.6% at 32 weeks to 17% at 35 to 36 weeks' gestation (Evans et al., 2001; Josefsson et al., 2001; Ashley et al., 2016). However, the rates are different in the United States. The prevalence of major depression is found to be 6.1 % during pregnancy while 7 % in non-pregnant American women (Ashley et al., 2016). The symptoms of depression during the first and the last trimester are usually more as compared to the second trimester (Kumar & Robson, 1984). Unintended and teenage pregnancy is an issue to fight with in the 21st century. These kinds of unintended pregnancies are deleterious for the maternal mental health. Around 21% of women with an unintended pregnancy are clinically diagnosed with depression across the world (Abajobir et al., 2016; O'Hara, 1986).

Many other psychiatric comorbidities have been found associated with pregnancy which includes generalized anxiety disorder, panic attacks, bipolar disorder, eating disorder and obsessive compulsive disorder. However, depression is the most common of



them amongst all and has been associated with lifethreatening consequences e.g. suicide. Proper measures have been taken recently to tackle the problem, yet the antenatal depression rate has not declined drastically in the US and across the world.

Why pregnant women are often diagnosed with depression is a topic of debate and study. Much work has been produced about the subject. A previous history of depression, discontinuation of medication(s) by a woman who has a history of depression, a previous history of postpartum depression, and a family history of depression, negative attitude towards pregnancy, lack of social support, maternal stress associated with negative life events, and a partner or family member who is unhappy about the pregnancy (Kumar & Robson, 1984; Abajobir et al., 2016; O'Hara, 1986) are the risk factors prevalent in the western world. However, in the developing countries like India, the risk factors tend to differ slightly from the risk factors in the Western world. In a study conducted in India by George et al. (2016), the percentage of depressed pregnant women was 16.3% among the 202 women sampled. The common risk factors for the ante-natal depression are pressure to have a male child, financial difficulties, non-arranged marriage, history of miscarriage and marital conflict.

Screening tool administration to identify women at risk of ante-natal depression is encouraged and also discussed in the past by many authors and researchers (Biaggi et al., 2016). Such tools could be beneficial for the well-being of mothers and the neonates. Moreover, proper education (Biaggi et al., 2016) about the possible risk factors among women from different cultural backgrounds is essential for the clinician.

Proper diagnosis and treatment of ante-natal depression is an important step in saving the lives of mothers and babies. A missed diagnosis of depression leads to failure to treat depression. This can result in several worse consequences like lack of compliance with prenatal care recommendations, poor nutrition, improper care, self-medication, alcohol and drug use, suicidal thoughts and thoughts of harming or killing the fetus, and it could be a risk factor of postpartum depression baby. An untreated maternal depression can also have a direct effect on the mental health of the fetus as well. It is studied that the babies born to depressed mothers have less frequent positive facial expressions and that these infants are also harder to console (Zuckerman et al, 1990). Moreover, it could translate into early childhood mental problems in the child.

The mood alterations during pregnancy could be a normal routine sadness of pregnancy, due to high levels of progesterone, which could be mistaken for depression. The wrong diagnosis can put the patients on anti-depressants, which could also affect the fetus's physical health in some instances. Therefore, correct diagnosis is imperative in saving the mother as well as the fetus from the detrimental side effects of the medication and the negative stigma associated with depression, especially in the developing countries (Pedersen et al., 2016).

The treatment of ante-natal depression is managed the same way as the traditional depression. Consideration about the safety of two lives (mother and fetus), is essential before starting the treatment. Well-known effective psychotherapeutic treatment for depression includes cognitive behavioral therapy (CBT) and interpersonal psychotherapy (American Psychiatric Association, 1993). Moreover, education is also considered very important to the condition, treatment, and the outcomes. Drug treatment is also commonly adopted by many clinicians for their patients (Zoega et al., 2015). However, proper and vigilant follow-up by the clinician is important to protect the patient and the fetus from any rare possible side effects of the drug therapy.

Various preventive methods to prevent antenatal depression have been studied lately. All these measures have been useful in preventing or decreasing the prevalence of depression. Perales et al. (2016), conducted a study where the pregnant women were encouraged to exercise. Exercising regularly decreased the chances of depression among these women. A study conducted in Australia shows that psychosocial assessment tools and correct depression screening during pregnancy can be helpful in reducing the depression among pregnant women (Kohlhoff et al., 2015). However, in the future, more research will uncover some more beneficial ways of prevention of antenatal depression.

4. Conclusion:

Missing the diagnosis of depression during pregnancy or inaccurately diagnosing depression when actually it is not depression, both conditions could be extremely harmful to the mother as well as for the fetus. A missed diagnosis of depression can lead to the problems like maternal suicide attempts which could be lethal if the suicide attempt is successful. Similarly, misjudging pregnancy symptoms and confusing them with depression symptoms also put the mother and the fetus at risk, due to the complications and the side effects associated with the anti-depressant medications.

Therefore, proper psychiatric education of the gynecologists and other relevant clinicians must be done so that they are able to diagnose major depression properly and would be able to clearly distinguish psychological symptoms of pregnancy



from clinical depression. Moreover, appropriate measures must be taken by the hospitals regarding the correct education, exercise programs and the implementation of the psychosocial assessment tools and depression screening of all the pregnant women during the time of their stay in the hospital. More research is needed in order to find the best way to help the non-psychiatric clinician like obstetricians, gynecologists, and the Primary Care Physician to be able to differentiate between the two conditions.

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