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WOMEN AND MOOD DISORDER AND TREATMENT

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ABSTRACT

Depression and other mood disorders are a bunch of disorders which that highly affect emotional state of human being especially women. With the progressive aging of the population, the percentage of women who are menopausal is expected to continue to rise, and thus, decreasing the liability of menopause related health conditions and enlightening overall quality of life become more and more important. The goal of this article is to inculcate additional information about women suffering different psychiatric disorders.

KEYWORDS: Depression, Menarche, pregnancy, post-partum.

Mood disorders, their symptoms and types

Nearly one in ten people aged 18 and older have mood disorders. Mood disorders might increase the capability of attempting suicide, as well as it escalates risk of heart disease, diabetes and many more life style diseases stress.[1] Abundant factors contribute to mood disorders. Most commonly it relates with life events such as stressful life changes, sudden occurrence of unfaithful event or death of the dearest one. Mood disorders also tend to run in families.[2] Also chemical imbalance in brain lead to mood disorders.[3] Symptoms included, like, feeling of helplessness or hopelessness, trouble sleeping, poor appetite or too much eating, poor concentration, low self-esteem, and trouble concentrating or making decisions.[4]

Mood disorders are a major health issues worldwide and might consider as the main contributor to the affliction of disease in the future.[5] According to National Comorbidity Survey (NCS) of USA, the lifetime prevalence of MDD was 21.3% for women and 12.7% for men, and as per recent data presented an approximately doubled lifetime risk of MDD in women[6] (*Kessleretal.,2003*). Women are predominantly susceptible to depression as well as other mood disorders at times of hormonal fluctuations such as switches between the premenstrual, postnatal and peri-menopausal phases.[7][8] And this susceptibility is explained

by the neuro-modulating effect of estrogen with in interactions with serotonergic system.[9] A number of articles have been published based on the assumption that alterations in sex hormones in female reproductive events may have effects on neurochemical pathways related to depression.[5]

In reproductive events, the contribution of hormonal changes to the dysregulation of serotonergic and nor-adrenergic systems involved in mood and behavior.[5] Though, the relationship between hormonal events and depressive illness in women is divisive, it has been considered as, the abridged capacity to adapt to fluctuations of estradiol or progesterone may predispose certain women to depression.[10]

Ailments under mood disorders include: Major depressive disorder (MDD), Bipolar disorder (mania- euphoria, hyperactivity, over inflated ego, unrealistic optimism), persistent depressive disorder (long lasting low grade depression), Cyclothymia (a mild form of bipolar disorder), and seasonal affective disorder (SAD).[5]

Here is the short description of women different phases related to the depression and hormonal levels:

Menarche state and depression

Some articles stated that, early menarche is highly associated with higher levels of estrogen and is considered as a strong independent risk factor for depression and other psychotic disorders. In this stage, we should consider body mass index (BMI) of a young lady.[5] Also, body fat percentage would have been a superior measure as white adipose tissue plays role in the production of estrogen.

Although, some findings were not statistically significant to prove the relation of depression and menstruation, but, some studies have indicated that women are more susceptible to depression if they start menstruation at a younger age.[11] In some studies mean reported age of menarche was 16 years. But is found that, this age is older than what is reported in Caucasian population. As per Park et al, 2006, 56.5% of women who were non between 1940 between 1949 had menarche at 15-16 years.[12]

Pregnancy and mood swings

In pregnancy, there are whole set of mood swings and various patterns, and the major reasons are stress, fatigue, and hormonal changes and these hormones include estrogen and

progesterone.[12] But it helps women to prepare their body for pregnancy, but it might lead to affect your mood, making you feel tearful or easily irritated. Mood swings are observed majorly in first trimester between 6 to 10 weeks and again in third trimester. Another study suggested that, childbirth may prevent harmful effects; and it is also possible that, living with children may reduce the risk of depression which might have been affected by the pregnancy itself.[13]

Post-partum phase and depression

As we know, there are some kind of biological effects of parity on development of the depression. Breastfeeding is well renowned for its beneficial effects on mothers' mental health. Most of the studies suggested that, breastfeeding mothers have lower chances of getting depression and other mood disorders.[14]

A candidate gene, the estrogen receptor alpha gene (ESR-1) is a key player in intervening hormonal differences during pregnancy and post-partum period. Few research works identified that, there is a potential interaction of serotonin transporter with ESR gene.[14]

Post-menopausal depression

The second major aim of this article was to examine the association between post-menopausal depression and hormone related life events. Extensive reproductive years were concomitant with a decreased risk of depression. Also, a later age menopause i.e. around 50-52 years resembled to a reduced risk of depression when compared to the women with a menopausal age younger than 46 years.[14]

But, bigger numbers of pregnancies and exogenous hormone practice were also associated with increased risk of depression. Clinicians must meticulously monitor and cogitate further screening for depressed women who undergo early menopause or those with exogenous hormone use.[15]

Some authors stated in their studies that, an earlier menopause age was linked with post-menopausal onset depression. An increased risk of depression and other mood disorders linked with longer use of oral contraceptives, HRT, and exogenous hormone-related factors.[16]

Various studies have reported that, after age 60, the age of menopause modifies the risk of diseases like ischemic stroke and breast cancer.[17] Reproductive years are extended by late

menopause and elongates lifetime estrogen exposure, but it increases the jeopardy of hormone-related diseases. It is showed that early menopause is allied with adverse socio-economic factors, such as low educational level or manual working class.[18]

Late menopause extends reproductive years and lengthens lifetime estrogen exposure, which increases the risk of hormone-related diseases.[9] It is known that early menopause is associated with adverse socio-economic factors, such as low educational level[9] manual working class[5] which has effect on depression onset.

Post-menopausal phase

During menopausal transition, a majority of women experience incommodious sympoms related to weakening and/or fluctuating levels of estrogen. Vasometer symptoms, vaginal dryness, poor sleep and depressed mood have all been bring into being to worsen during this phase, and it affects quality of life.[5]

Beyond that, sleep instabilities may increase the risk for emerging adverse health conditions such as Chronic Obstructive Pulmonary Disease (COPD) and psychic disorders (depression, anxiety etc) that can lead to sleep difficulty.

Women with post-menopausal depression incline to have lower estradiol and serotonin concentrations, in contrast to high levels of follicle stimulating hormone.[5]

Treatment

With the help of meta-analysis, few epidemiological studies conducted on Asian women suggested that, for exogenous hormones, Hormone Replacement Therapies (HRTs) have marked effects in plummeting depressed mood among post-menopausal women. Among all Hormone Replacement Therapy, Estrogen Replacement Therapy may improve the quality of life of asymptomatic postmenopausal women.[5]

Selective Serotonin Reuptake Inhibitors

These have been found efficacious in the treatment of depression for women in all different hormonal stages, which have rapid relieving effect on depressive symptoms. Paroxetine and fluoxetine have been used to treat depression and anxiety.

Venlafaxine is a collective serotonin and norepinephrine reuptake inhibitors (SNRI) that has showed assurance in reducing the severity of depression in women. But these SSRI or SNRI

is the core of the sexual dysfunction, and thus, management strategies usually include shifting to another medication i.e. busprione, which is used as a sexual stimulant.[67,68,69,70]

Many articles suggested that Hormone Replacement Therapy have protective effects on depressive symptoms at post-menopausal phase.[10][15] Estrogen has higher range of protective action considered with all phases of depression in women, and it has been proven by many experimental studies.[11]

Oxytocin is another promising hormonal regiment for treatment of depression specifically in women. It has been implicated in the stifling of hypothalamic-pituitary-adrenal (HPA) axis activation and emotional reactivity at rest to physical or physiological stressors in social mammals.[19][20]

It was found that along with such antidepressants, soybean potentially helped to settle down mood in most of the menopausal women patient.[21] Saffron (*Crocus sativus*) deal with other psycho modulatory drugs and support in inhibition of monoamine reuptake and enhanced binding and sensitization of serotonin receptors.[22]

As per Chinese patents on flavonoids, terpenoids, xanthones, phenyl propanoids and phenols would be needful in the treatment of mood disorders in women with different age and physical conditions.[23]

CONCLUSION

It has been considered that, for those who started using HRT at a younger age had the uppermost risk for depression. Although, depression has various etiologies in its disease onset, this article advises the apparent connotations between several factors related to the female hormonal system and post-menopausal onset depression. There was magnificent tendency between a longer period of reproductive years and a reduced risk of depression onset. Also, it considered as, not menarche age, but menstrual age, was the major contributing factor in relationship with depression and other mood disorders. By knowing the natural history of menopausal symptoms, the risks and benefits of both hormonal and non-hormonal replacements, aids the clinician personalise management strategies to improve quality of life.

If women began their HRT at 48 years old younger, the probability of onset of depression post-menopause is less.

REFERENCES

1. Calice C, Lazzaretti C, Fontanive T, Ravizzoni D, Bauereis B, Duzzo G. Estrogen-dependent effects on behavior, lipid-profile, and glycemic index of ovariectomized rats subjected to chronic restraint stress. Behav Processes [Internet], 2014; 103: 327–33. Available from: http://dx.doi.org/10.1016/j.beproc.2014.01.022
2. Downloaded From: http://archpsyc.jamanetwork.com/pdfaccess.ashx?url=/data/journals/psych/0/ by a Fudan University User on 02/26/2017, 2017; 73(11): 2017.
3. Karina IM. Hormonal Contraception and Its Association With Depression, 2017; 2017.
4. Rocha-cadman X, Massie MJ, Hamel KDU, Ph D. Aromatase inhibitors and mood disturbances, May, 2011; 2012: 225–7.
5. Jae S, Shin A, Kang D. Hormone-related factors and post-menopausal onset depression : Results from KNHANES (2010 – 2012). J Affect Disord [Internet], 2015; 175: 176–83. Available from: http://dx.doi.org/10.1016/j.jad.2014.12.061
6. Popper CW. Mood disorders in youth: Exercise, light therapy, and pharmacologic complementary and integrative approaches. Child Adolesc Psychiatr Clin N Am [Internet], 2013; 22(3): 403–41. Available from: http://dx.doi.org/10.1016/j.chc.2013.05.001
7. Goldstein JM, Handa RJ, Tobet SA. Frontiers in Neuroendocrinology Disruption of fetal hormonal programming (prenatal stress) implicates shared risk for sex differences in depression and cardiovascular disease. Front Neuroendocrinol [Internet], 2014; 35(1): 140–58. Available from: http://dx.doi.org/10.1016/j.yfrne.2013.12.001
8. Trapp NT, Xiong W, Conway CR. Neurostimulation Therapies, 2018.
9. Zheng X, Zhang X, Wang G, Hao H. Treat the brain and treat the periphery : toward a holistic approach to major depressive disorder. Drug Discov Today [Internet], 2015; 00(00). Available from: http://dx.doi.org/10.1016/j.drudis.2015.03.015
10. Pinsonneault JK, Sullivan D, Sadee W, Soares CN, Hampson E, Steiner M. Association study of the estrogen receptor gene ESR1 with postpartum depression — a pilot study, 2013.
11. Scali J, Ryan J, Carri I, Ancelin M. Lifetime hormonal factors may predict late-life depression in women, June; 2008; 1203–18.
12. Cameron B, Gueorguieva R. The Influence of Cyclic Hormonal Contraception, 2017; 26(4): 321–8.
13. Dimatteo J, Collins S, Evans SM. Eating Behaviors Alcohol consumption as a function of

dietary restraint and the menstrual cycle in moderate / heavy ("at-risk") female drinkers. Eat Behav [Internet], 2012; 13(3): 285–8. Available from: http://dx.doi.org/10.1016/j.eatbeh.2012.03.011

14. Lawley ME, Haddad L, Burley K, Farr SL, Lawley M. Corresponding Author : PT Division of Family Planning. Contraception [Internet]. 2017; Available from: https://doi.org/10.1016/j.contraception.2017.09.009
15. Asher GN, Gerkin J, Gaynes BN. Complementary Therapies for M ental H ealth D i s o rd e r s., 2017.
16. Liu Q, Deng R, Fan Y, Li K, Meng F, Li X, et al. Low dose of caffeine enhances the efficacy of antidepressants in major depressive disorder and the underlying neural substrates, 1–43.
17. Seliktar N, Polek C, Brooks A, Hardie T. Cognition in breast cancer survivors : hormones versus depression, 2014.
18. Al-sa ZA, Santoro N. Menopausal hormone therapy and menopausal symptoms, 2014.
19. Simeon D, Bartz J, Hamilton H, Crystal S, Braun A, Ketay S, et al. Oxytocin administration attenuates stress reactivity in borderline personality disorder : A pilot study. Psychoneuroendocrinology [Internet], 2011; 36(9): 1418–21. Available from: http://dx.doi.org/10.1016/j.psyneuen.2011.03.013
20. Ossewaarde L, Wingen GA Van, Rijpkema M. Menstrual Cycle-Related Changes in Amygdala Morphology are Associated with Changes in Stress Sensitivity, September, 2011; 000.
21. Republic D. EFFECTS OF ANTIDEPRESSANTS AND SOYBEAN ASSOCIATION IN DEPRESSIVE MENOPAUSAL WOMEN, 2014; 71(2): 323–7.
22. Sarris J, Panossian A, Schweitzer I, Stough C, Scholey A. Herbal medicine for depression, anxiety and insomnia : A review of psychopharmacology and clinical evidence. Eur Neuropsychopharmacol [Internet], 2011; 21(12): 841–60. Available from: http://dx.doi.org/10.1016/j.euroneuro.2011.04.002
23. Sun C, Geng C, Yin X, Huang X, Chen J. Journal of Asian Natural Products Natural products as antidepressants documented in Chinese patents from 1992 to 2013, December, 2014; 37–41.