Critique On The Vitamin b6 During Pregnancy

Introduction

Nowadays, taking supplement is very common to pregnant women or ready for pregnancy aim to a comfortable pregnancy period, and also prepare a better growth of infant. However, overdosing of vitamins or minerals would get side effects. According to Consumer council (HK) (2018) reports 9 of 76 samples' suggested dosages are extremely more than the upper intake level of the Chinese Nutrition Society. This essay will explore the claim of a supplement for nausea and vomiting of pregnancy (NVP) is valid, and this product is suitable and safe for daily-use to pregnant women who find nausea.

A dietary supplement is called "Peapod PregEase for morning sickness", manufactured by Fairhaven Health, LLC in the United States. Every two tablets mainly contain 10 mg of vitamin B6 (pyridoxine hydrochloride), 1 mcg of vitamin B12 (methylcobalamin), 110 mg of calcium (calcium carbonate), and proprietary blends are total 175mg. The recommendation of usage is 2-4 tablets per day (10-20 mg per day) in pregnancy to relieve the symptoms of nausea. This product claims that it contains different vitamins to reduce the seriousness and symptoms of nausea and vomiting during pregnancy. The ingredient vitamin B6 will be focused to analysis in this essay.

Efficacy

Sahakian, Rouse, Sipes, Rose, & Niebyl (1991) examine a randomized assess pyridoxine hydrochloride (vitamin B6) with double-blind placebo-control study. There were total 59 women in this evaluation for three days, 31 peoples have 25 mg of vitamin B6 tablets for every 8 hours intake, at the same time 28 peoples received placebo as control group. This study found significant improvement in severe nausea in placebo group and B6 group, while little difference in moderate nausea. Although the result supported the improvements by vitamin B6, the dose is 25%-150% more than this supplement's recommendation of usage.

Pregnancy-Unique Quantification of Emesis (PUQE) scores is an index for the severity of NVP (Koren, 2002). A report by Jafari-Dehkordi (2017) uses PUQE-24 as severity baseline, to evaluate the changes of 70 peoples. One group is 35 pregnant women, who received 20 mg of vitamin B6 for every time before meal in 7 days, plus 7 days investigation. Meanwhile, another assessment group should take 1 teaspoonful of quince syrup for comparison. The result shows these two groups could significantly reduce NVP symptoms. The experimental dosage matches the supplement recommended maximum usage, the effectiveness of lower dose needs further evidences to support.

Wibowo et al. (2012) studies the improvement of different dose of vitamin B6 for NVP, especially focus on the period from beginning of pregnancy to the 12th week of gestation. The duration two weeks randomized experiment divided 60 patients into two groups, one group, 30 women, received 10 mg of pyridoxine hydrochloride (HCL) per day, the other group, 30 women, was requested to take 1.28 mg per day. The data demonstrates that higher consumption of vitamin B3 could relieve the illness of NVP, while less different of impact on the severity.

Regarding the suggested usage of supplement, this experiment is able to verify the effectiveness of the dose (10 mg).

Safety

Overdose of pyridoxine, more than 100 mg for normal adult might cause neuropathy syndrome, “The symptoms were paraesthesia, hyperaesthesia, bone pains, muscle weakness, numbness and fasciculation” (Dalton & Dalton, 1987, p.8). Concerning the daily intake level, total 30 - 100 mg, should also be divided into three to four times per day during pregnancy, is recommended by American Congress of Obstetrics and Gynecology (ACOG) (2004). In addition, the upper intake level in pregnancy is 100 mg for older than or equal to 19 years old, and 80 mg for 14-18 years old. (Institute of Medicine, 1998). This product could provide 10 – 20 mg daily, is much safe as supplement for pregnant women.

Conclusion

In summary, the claim is logical as this product’s ingredient of vitamin B6 could help on nausea, as well as the safety is also valid. Despite the fact, over consumption of vitamin B6 would lead side effects, it is suggested to consult with the doctors before any dietary supplements for security.