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Mini-Review Article

The Effect of Chewing Chat During Pregnancy on Perinatal Outcome: Review

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Abstract

The consumption of khat during pregnancy is associated with an increased risk of low birth weight, congenital anomalies, premature rupture of membranes, perinatal mortality, and reduced APGAR scores at five minutes post-delivery. Furthermore, it is correlated with being small for gestational age at the time of delivery and a heightened incidence of fetal growth restriction (FGR).

Introduction

Catha edulis (khat) is a plant grown commonly in the Horn of Africa. People chew khat leaves because of its stimulating properties. Chewing on its sensitive leaves and young buds produces a stimulating and euphoric effect. Growing as a bush or small tree, khat is an evergreen shrub. The smell of the leaves is fragrant. It has a slightly sweet and astringent flavor. The robust, seedless plant may grow in a range of soil types and climates [1]. In East Africa and the southwest region of the Arabian Peninsula, people often chew khat leaves. Chewing khat has spread to Australia, Europe, the United States, and other African nations. Khat use on a daily basis may negatively impact the user's social and financial life. At social events, khat is used. The leaves and young shoots of the plant Catha edulis Forsk., a species in the Celastraceae family, are referred to as khat. The terms qat, q'at, kat, kath, gat, chat, tschat (Ethiopia), miraa (Kenya), and murungu are also written and/or used. The use of khat produces a state of euphoria and increased alertness. It can also produce insomnia and an increase in blood pressure, heart rate, and body temperature. Psychotic reactions induced by khat use have also been reported [2,3]. Numerous adverse effects, including mood swings, hyperactivity, aggression, anxiety, despair, elevated blood pressure, manic behavior, paranoia, and psychosis, can also be brought on by khat. Lack of focus, energy depletion, and difficulty sleeping are common side effects of khat use. Migraines, brain hemorrhage, heart attacks, blood vessel alterations, lung issues, liver damage, and alterations in sex drive and performance are among the severe negative effects of khat [4].

Chewing khat is typically done in social settings in groups. Few people often chew by themselves. A session could go on for a few hours. Chewers consume large quantities of non-alcoholic beverages including cola, tea, and cold water during this time. During a khat chewing session, there is initially a positive, upbeat, and generally positive vibe. Tension, emotional instability, and irritability start to show up after around two hours, and these symptoms eventually give way to feelings of sluggishness and poor mood. Chewers often feel exhausted after the session [1]. Many different compounds are found in khat, including alkaloids, terpenoids, flavonoids, sterols, glycosides, tannins, amino acids, vitamins, and minerals. The major pharmacologic and toxic effects come from the phenylalkylamines and the cathedulins. The major effects of khat include those on the gastro-intestinal system and central nervous system, but also affect the cardiovascular, respiratory, endocrine, and genito-urinary systems. The effects on the central nervous system resemble those of amphetamine with differences being quantitative. The main toxic effects include increased blood pressure, tachycardia, insomnia, anorexia, constipation, general malaise, irritability, migraine and impaired sexual potency in men [1]. But the effect of Khat on neonatal outcome, pregnancy and childbirth is not well studied. So, this review was commenced to shade light and attract attention of researcher to carry out study on the topic under consideration. A rapid evidence review approach was applied to search and summarize the available evidence on the effect of khat on pregnancy outcome. We identified published papers from different sources concerning the objective of the review to facilitate searching of relevant articles.

Result

There are limited studies that focus on the effect of khat on pregnancy outcome, childbirth, or newborn health. Even the studies that are available are observational (comparative, cross-sectional studies). But the studies identified have shown a clue for further studies. One of the studies identified the effect of Khat on newborn health outcomes as low birth weight, and congenital anomalies. The probability of children born from mothers who were chewing khat during pregnancy was higher to be low birth weight (less than 2.5kg) and develop congenital anomalies compared to children born from mothers who did not chew khat during pregnancy. On the other hand, chewing Khat during pregnancy is associated with premature rupture of the membrane during pregnancy. I was also found to cause perinatal mortality and lower APGAR score at birth measured at the 5th minute [5,6]. Chewing Khat during pregnancy was also found to cause fetal growth restriction (FGR) during the pregnancy period. It was found to result in a small for gestational age at birth [7].

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