**Medicinal Potential of Miraa and Muguka - Catha edulis Extracts: Harnessing Positive Effects for Therapeutic Interventions in Meru Kenya**

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**Abstract:**

Khat, popularly known as ‘Miraa and Muguka in Kenya’ is an evergreen shrub cultivated as a small tree or bush. It is a natural psychoactive. Effects produced by the chewing of twigs include excitation, alertness hypersensitivity, anorexia, insomnia, euphoria, increased respiration, and hyperthermia. Most research on Miraa has previously focused on negative medical and social aspects of consuming the plant. Most of the previous researchers have carried research on the premise that Miraa has negative impacts on health and the society forgetting the positive medicinal and nutraceutical benefits accrued from use of controlled amount of cathinone extracted using current modern technology. There is little documented information on these positive effects such as Medicinal value of various Miraa varieties in Kenya. This near total neglect of research in Miraa medicinal value has resulted in lack of information and development of medical products that enhances usage and full realization of the medical potential of the crop or herb as used by Miraa chewing community. Miraa compared with other stimulants such as tea and coffee are consumed as processed products presented in different forms, Miraa has double stimuli effects which if tapped could have double effects in addressing various medical challenges among the human population. However, because Khat is consumed raw by chewing of the young shoots, leaves and twigs due to limited processing and value addition. Research, extraction and repackage of the extracts for its confirmed and validated desired effects just like Sildenafil. The Various Khat parts such as twigs, roots, backs, stems were evaluated to confirm the amount of cathinone contained, enormous amount of 90% to 98% of Cathinone from every 300gram of raw Miraa and Muguka. Other related components were extracted from Miraa are capable of solving various human health problems. This study sought to change the presentation twigs and leaves from chewing only use to a more valuable hygienic product. Miraa research on integration of the Khat extracts into different forms such as chewable forms, suspensions, parenteral Intravenous infusions, miraa flavors, herbal extracts and nutraceuticals to enhance Khat Medical Value. This will reduce the stigma associated with Miraa use as an additive drug, to drug of medical importance is not yet documented. The study investigated and confirmed the positive untowards medical effects of various Miraa and Muguka (Khat) active ingredients. In addition to Miraa and Muguka (Khat) extracts medical other untowards effects will be studied to ascertain their medicinal value. Through ongoing precise prepared khat extracts are undergoing animal clinical trials at Meru University, this is to ascertain the extracts desired health effects of Miraa preparation on guinea pigs’ weight and other physiological changes, each group of guinea pigs was evaluated to ascertain the cathinone dose specific effects-based weight and obesity from Miraa and Muguka extracts, The dopaminergic like effects on various Brain centers was also identified. Therefore, Miraa and Muguka (Khat) requires urgent attention to extract molecules of value. This study enhanced integration of Miraa and Muguka (Khat) Medicinal extracts into various forms and ingredients into tablets, suspension, Chewable pills, and parenteral infusions vehicles.

**Key** **Words**: *Anti Appetite, Dopaminergic Action, Cathine, Cathinone, Herbal, Medicinal. Nutraceutical Extracts, Miraa, Muguka, Khat, Weight/Obesity Management,*