

Application of Aloe Vera Juice as an Adjuvant for Adult Depressive People to Pseudo-Dementia People in a Long Period. Case Report 1-2

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Abstract

Aloe vera juice (AVJ) in long term-ingestion improved older people diagnosed of multi-pharmacy. AVJ containing essential amino acids with a mucopolysaccharide, acemannan, as a precipitation-type adjuvant, could suggest to support the recovery of pseudo-dementia in older people.

Keywords: AVJ Long Term-Ingestion; Diagnosed Dementia; Multi-Pharmacy; Older People; Recovery Mental Health

Introduction

Recently the research laboratory of Ajinomoto company investigated that intake of essential seven amino acids, 3g (35 persons) or 6g (33 persons) in middle-aged and older adults 105 control for 3 months were investigated. The improvement in 6g ingested group was resulted in the cognitive function, psychological and social function in middle aged and adult groups by a double blind, randomized, placebo-control trial [1].

On the other hand, the utilized main constituents over 200 in Aloe vera are following: mucopolysaccharides (acemannan), enzymes, essential and non-essential amino acids, C-glycosides; aloin, aloe-resins and minerals were reported [2]. The compounds in Aloe leaf exudates were reviewed [3] and toxicology and carcinogenesis studies of a none-colored extract of Aloe vera in F344/N rat and B6C3F1 mice were demonstrated resulting the negative results [4].

Aloe vera juice ingestion in long period has been utilized as one of adjuvant in several clinical trials

Aloe vera leaf extract reduced brain barrier permeability and improved neurological outcome decreasing oxidative and increasing antioxidant factors following traumatic brain injury treatment [5].

In the present investigation, application of Aloe vera juice for adult depressive people to pseudo-dementia people for long period ingestion was demonstrated in case report 1 and 2.

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Case report 1: A 65 years old female who was diagnosed as depression, constipation and pseudo-dement disease on 2011. And she consulted Kampo pharmacist to mitigate the diseases on June, 2023. Kampo-pharmacist gave her Aloe vera juice (AVJ) 100ml/day, since then. The patient had a well excretion and well QOL. She has been taken the supper mixed with AVJ in April, 2025.

Case report 2: A 92 years-old female diagnosed dementia, had urinary tract infection with fever on July, 2023. She was diagnosed in the hospital but she was normal. Then, she asked the Kampo pharmacist, and ingested AVJ 150ml by gastrostomy. She had a well sleeping and no heat trouble. On next day, she had body temperature at 37.5°C. She was diagnosed multi-pharmacy (donepezil, clopidogrel, etc.: 17 dementia drugs) in the hospital and had AVJ 500-600ml/d, since September, 2023. In April, 2024, she had well QOL and mitigated her body condition to multi-pharmacy. She had been well QOL in April, 2025 since then.

Discussion

Because of declining in organ function by multi-pharmacy, brain and organs malfunction strongly declined and a shiver runs down and decreased level of consciousness. By stopping multiple drugs administration and AVJ intake clearly demonstrated the recovery of consciousness. Brain function is shown as follows: "Brain stem to Limbic Adjuvant system development into the Neocortex".

Function of Aloe vera juice as an adjuvant

An adjuvant is a drug or another substance enhancing their activities. Since 1926, the first stage of adjuvant (kalium-aluminum sulphate) was changed into aluminum hydroxide salt and aluminum phosphate. The purpose of adjuvant is followed to stay and keep and protect the antigen incomes. After the first stage macrophages come to the inflammation occurred place, the antigen was easily phagocytosed by macrophages. And activity of T-cell and B-cell in lympho-cell were activated to kill the antigen. Aloe vera juice (AVJ) containing over 200 main constituents has been utilized in long period as one of adjuvant to several clinical trials. In an earlier case report, the ingestion of AVJ as an adjuvant in old-multi-pharmacy patient demonstrated well sleeping and gut-circumstance development [6].

Presence of two kinds in adjuvant were reported: Precipitation-type of adjuvant and Oil suspension-type of adjuvant.

Acemannan, acetylmannan, which has been usually described as a main polysaccharide in Aloe vera gel, is a polysaccharide found in inner part of Aloe vera leaf gel. On dry-mater-basis of Natural Aloe vera in Costa Rica, Aloe vera consist (%) of polysaccharide (acemannan) 55, sugars 17, minerals 16, proteins 7, lipid 4, phenolic substances 1 [7].

Acemannan (acetyl mannan), one of the utilized main constituents over 200 in Aloe vera, mucopolysaccharide strongly combines with hyaluronic acid [8], hyaluronan [9], lectin [10], protein [11], glycoprotein [12], vitamin C and B12 [13], minerals and water in the extra-cellular of Aloe vera gel. In our body, mucopolysaccharide tightly combines with proteins to keep water producing and supplying blood and body fluids, as proteoglycans. A mucopolysaccharide, acemannan, widely controls the circulation and metabolism for human body health with successive supplying water as a precipitation-type of adjuvant [14]. Since 2003, I had expressed over 80 reviews and research papers including the gut ingested-microbiome and the endophytic microbiome fermented short chain fatty acids, such as acetic, propionic and butyric acids from Aloe vera gel and Aloe vera juice (AVJ), respectively, and AVJ was certified by International Aloe Science Counsel. AVJ had been expressed as a precipitation-type adjuvant in clinical and medical fields.

Seven essential amino acids improving cognitive function and the possible presence of essential amino acids in Aloe vera adjuvant in recent investigation

H. Suzuki, *et al. Front Nutr* 2020 Nov 25, 7;5856166. "Intake of seven essential amino acids, 6g/d improved the cognitive function and psychological and social function in middle-aged and older adult control, 105. A double blind, randomized placebo-controlled trial was demonstrated. Intake seven essential amino acids following: his, ile, leu, lys, phe, w, val, improved cognitive function in middle and aged adults" [1].

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Presence of essential amino acids in Aloe vera extract juice

A, Surujushe., *et al.* Aloe vera: A short Review. *Indian J. Dermatology* 2008, 53(4),118-166. "Unlocking the cognitive benefits of Aloe vera, insights from science: Science-backed benefits of Aloe vera extract juice, from improved memory to reduced depressive symptoms, make it a compelling addition to any wellness routine Aloe vera juice, with its superior quality and purity, is the ideal choice for those seeking to experience these transformative benefits" [2].

Most of over 200 constituents are suspended in Aloe vera juice (AVJ) as a precipitation-type adjuvant after exclusion of bitter yellow aloin less than 10 ppm from clear gelatinous Aloe vera gel. AVJ is classified as soft drinks in Japan. And the presence of non-essential and essential amino acids was demonstrated in Aloe vera juice as aloin-less 10 ppm.

Conclusion

Aloe vera juice had been ingested as a precipitation-type adjuvant for various mental diseases in older multi-pharmacy patients. Daily ingestion of amino acids including essential amino acids combined with acemannan, mucopolysaccharide, in Aloe vera juice as a precipitation-type adjuvant in long period could suggest to support the mental health conditions in adult peoples.

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