

Ceylon Tea in reducing irritability and aggressive behaviour in Huntington's disease (HD): A Sri Lankan perspective

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Keywords - Huntington Disease, Natural products, Tea, Sri Lanka.

Background:

Although depression being the most common behavioral manifestation in HD, aggression and irritability are also commonly reported. A positive effect of natural products has been reported for aggression and irritability. However, the effect of pharmacological and nonpharmacological interventions in treating aggression and irritability in HD remains inconclusive.

Aim:

To assess the effect of Ceylon tea on the behavioral manifestations in HD.

Method:

Sociodemographic, dietary and clinical data of 23 genetically confirmed HD patients were recorded. Behavioral Assessment was performed by Unified Huntington's Disease Rating Scale- Behavioral Assessment (UHDRS-b). Subscales of UHDRS-b; depression, irritability/aggression, obsessive/compulsive behaviours, apathy and psychosis were computed.

Results:

HD patients: [Adult onset n=22 (96%), Juvenile onset n=1 (4%), Male n= 10 (44%), Female n=13 (56%)], age of onset: 16-64yrs (mean= 43.6±13). Tea consumption and UHDRS-b; Low- Black tea consumption- LTC (≤2 cups/day) n= 12, range 19-69 (median= 40.5); High- Black tea consumption- HTC (≥3 cups/day) n=11, range 18-61 (Median= 27). Values for each subscales of UHDRS-b with LTC/HTC value range, median respectively; depression- [LTC 3-48,17; HTC 1-52,13]; irritability/aggression- [LTC 9-23,13; HTC 0-16,6]; obsessive/compulsive- [LTC 0-15,1; HTC 0-22,2]; apathy- [LTC 3-12,6; HTC 0-6,4]; psychosis- [LTC 0-12,1; HTC 0-3,0] A significant difference obtained between LTC and HTC for the irritability/aggression subscale P=0.0056*.

Conclusion:

This pilot data suggests that, regular consumption of black tea is associated with a reduced irritability/aggression in HD. However further studies with larger sample size are warrant.

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ABSTRACT

Background: Although depression being the most common behavioral manifestation in HD, aggression and irritability are also commonly reported. A positive effect of natural products has been reported for aggression and irritability. However, the effect of pharmacological and nonpharmacological interventions in treating aggression and irritability in HD remains inconclusive. **Aim:** To assess the effect of Ceylon tea on the behavioral manifestations in HD. **Method:** Sociodemographic, dietary and clinical data of 23 genetically confirmed HD patients were recorded. Behavioral Assessment was performed by Unified Huntington's Disease Rating Scale- Behavioral Assessment (UHDRS-b). Subscales of UHDRS-b; depression, irritability/aggression, obsessive/compulsive behaviours, apathy and psychosis were computed. **Results:** HD patients: [Adult onset n=22 (96%), Juvenile onset n=1 (4%), Male n= 10 (44%), Female n=13 (56%)], age of onset: 16-64yrs (mean= 43.6±13). Tea consumption and UHDRS-b; Low- Black tea consumption- LTC (<2 cups/day) n= 12, range 19-69 (median= 40.5); High-Black tea consumption- HTC (>3 cups/day) n=11, range 18-61 (Median= 27). Values for each subscales of UHDRS-b with LTC/HTC value range, median respectively; depression- [LTC 3-48,17; HTC 1-52,13]; irritability/aggression- [LTC 9-23,13; HTC 0-16,6]; obsessive/compulsive- [LTC 0-15,1; HTC 0-22,2]; apathy- [LTC 3-12,6; HTC 0-6,4]; psychosis- [LTC 0-12,1; HTC 0-3,0] A significant difference obtained between LTC and HTC irritability/aggression subscale P=0.0056*. **Conclusion:** This pilot data suggests that, regular consumption of black tea is associated with a reduced irritability/aggression in HD. However further studies with larger sample size are warrant.

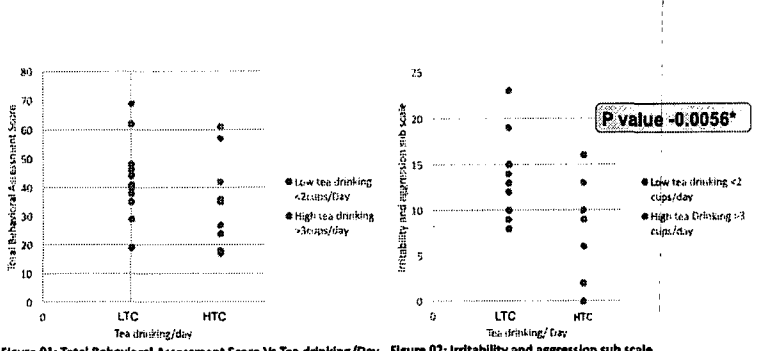
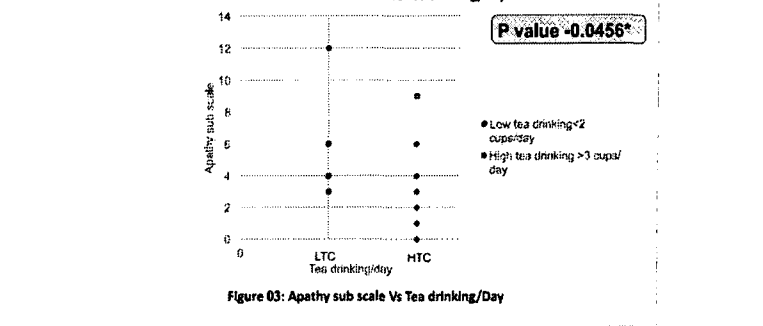
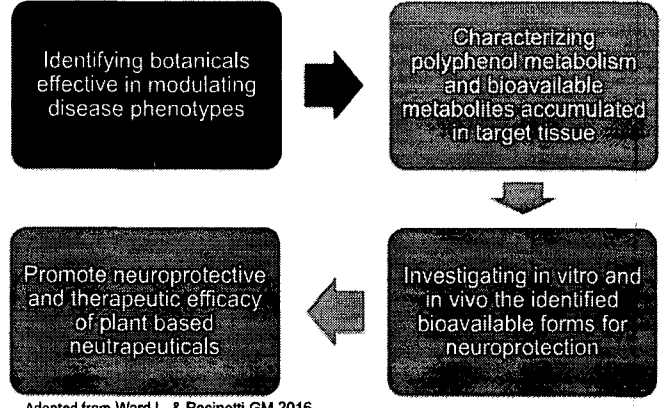


Figure 01: Total Behavioral Assessment Score Vs Tea drinking/Day Figure 02: Irritability and aggression sub scale Vs Tea drinking/Day



Discussion
This pilot data suggests that, regular consumption of black tea is associated with a reduced irritability/aggression and apathy in HD patients. Since tea is the second most consumed beverage in the world, after water (Cheng, 2006) health benefit may have considerable public health impact. Unfortunately, currently available treatments for psychiatric disorders often have extreme side effects and adverse drug reactions, as well as inconvenient drug-drug and food-drug interactions. Therefore, natural dietary supplements targeting multiple sites in the brain could provide clues to challenge the prevailing and failing approach of the pharmaceutical industry by demonstrating the safe and efficacious role of novel botanical supplements from traditional South Asian diet, which is characterized by being rich in pulses, cereals, green vegetables, fruits and unique spices. (Qureshi and Al-Bedah 2013)

Future Research Directions



Adopted from Ward L & Pasinetti GM 2016

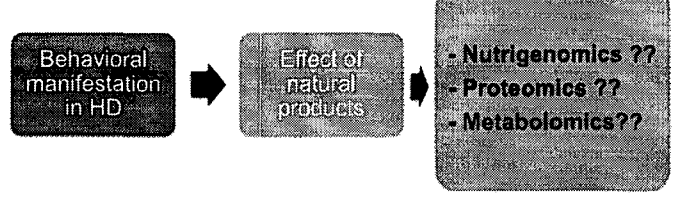
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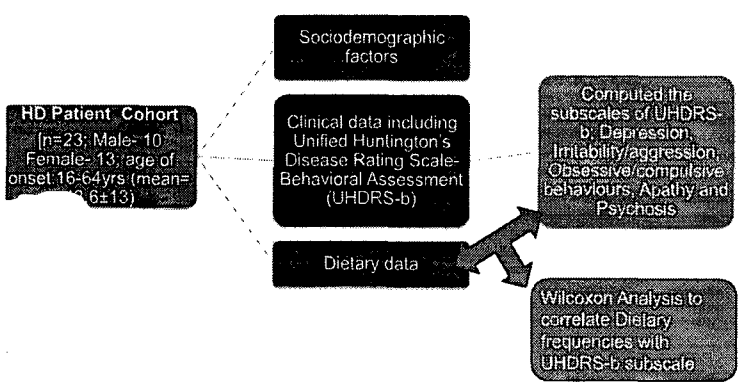
INTRODUCTION



OBJECTIVE

To assess the effect of Ceylon tea on the behavioral manifestations in HD.

METHODOLOGY



RESULTS

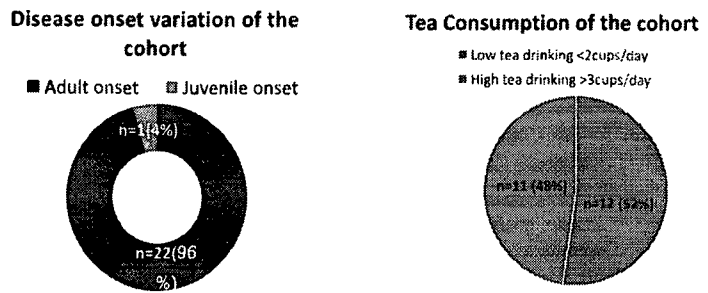


Table 01: Wilcoxon Analysis to subscales of UHDRS-b score with Tea drinking/day

subscales of UHDRS-b score	Low- Black tea consumption- LTC (<2 cups/day)		High- Black tea consumption- HTC (>3 cups/day)		P value
	Range	Median	Range	Median	
Depression	3-48	17	1-52	13	0.3235
Irritability/aggression	9-23	13	0-16	6	0.0056*
Obsessive/compulsive	0-15	1	0-22	2	0.9338
Apathy	3-13	6	0-6	4	0.0456*
Psychosis	0-12	1	0-3	0	0.1041