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Original Research Article

To compare and contrast the effects of dietary supplements between dvit cardio and its competitor brand

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ABSTRACT

Background: Nutraceuticals are the organically formed by traditional foods, but are consumed in the form pills, capsules or liquids. Dvit Cardio is a nutraceutical that has been proven to be a dietary supplement beneficial for the general as well as the diabetic participants. Dvit Cardio is in the form of powder, thus can be consumed easily. It is a multivitamin supplement that adds to the nutritional intake of the users. The objective of the study was to compare the lipid profile outcomes between Dvit Cardio users and competitor brand users.
Methods: The study was undertaken with 100 participants who were randomly divided into two groups of 50 each. Group 1 was given Dvit Cardio, and Group 2 was given the competitor brand. The study was performed at Sri Aurobindo Institute of Medical Sciences, Indore.
Results: There was a statistically significant difference between the two groups with regards to the triglyceride level. Further, there was a statistically significant difference among the two groups with regards to HDL Cholesterol level. Also there was a statistically significant difference among the two groups with regards to LDL Cholesterol level and Hb1Ac % level.
Conclusions: It was found that Dvit Cardio had positive health impact on the lipid profile parameters of the participants included in the study as compared to the competitor brand. It was also found that Dvit Cardio was beneficial for diabetic patients owing to its sugar-free properties.

Keywords: Cardio supplement, Lipid profiles, Nutraceuticals

INTRODUCTION

The term Nutraceuticals finds its origin by the combination of two different words "nutrition" and "pharmaceuticals".[1] This identifies that the nutraceuticals are the organically formed by traditional foods, but are consumed in the form pills, capsules or liquids.[2] These are the dietary supplements that need to be incorporated with the normal diet in order to increase the dietary intake for better metabolism and enhance the benefits that are beyond the normal diet.[3]

There are basically two types of nutraceuticals: potential nutraceuticals and established nutraceuticals.[4]

A potential nutraceutical is a term used for those nutraceuticals that have the ability to prove to demonstrate the benefits of the dietary supplements.[5] On the other hand, the established nutraceuticals are those that have proven their benefits for dietary supplements.

Similarly, Dvit Cardio is a nutraceutical that has been proven to be a dietary supplement beneficial for the general as well as diabetic patients. Dvit Cardio is in the form of powder, thus can be consumed easily. It is a multivitamin supplement that adds to the nutritional intake of the users. The main USP of Dvit Cardio is its two important contents; Arjuna extract and Beetroot

extract. Arjuna extract helps in reducing risk of heart attack and has strong anti-hypertensive property.

It also has properties like antioxidant, anti-inflammatory and antimicrobial. On the other hand, Beetroot extract improves digestive health, supports brain health, helps in weight loss and have some anti-cancer properties. Therefore, this study was undertaken to identify the effects of Dvit Cardio and the competitor brand on the lipid profile parameters of the participants.

The objective of the study was to compare the lipid profile outcomes between Dvit Cardio users and competitor brand users.

METHODS

Observational study conducted at Sri Aurobindo Institute of Medical Sciences, Indore from January 2019 to March 2020.

Inclusion criteria

All patients aged more than 18 years of both gender and willing to participate.

Exclusion criteria

All patients aged less than 18 years of both gender. Procedure: The study was undertaken with 100 participants who were divided into two groups of 50 each. Group 1 was given Dvit Cardio, and Group 2 was given the competitor brand, and their lipid profiles were compared.

Statistical analysis

Data was collected in MS Excel. Frequency analysis was applied on categorical and descriptive statistics were performed on continuous data. Comparison between various parameters was done applying t-test. All the analysis was performed in SPSS version-25.

RESULTS

Table 1: Demographic characteristics of group 1 and group 2.

Demographic characteristics	Group 1	Group 2
Age (years)	40.5±12.5	41.3±11.9
Male	22	26
Female	28	24
Diabetes mellitus	32	29
Hypertension	35	36

From the above Table, it was identified that the mean age of group 1 was 40.5±12.5 years, and the mean age of group 2 was 41.3±11.9 years. The number of male participants in group 1 was 22 and in group 2 were 26. The number of female participants in group 1 was 28, and in group 2 was 24. Both groups had more number of female participants who required supplement intake. Diabetes mellitus was present in 32 participants in group 1 and 29 participants in group 2. Hypertension was also present in 35 participants in group 1 and 36 in group 2.

Table 2: Lipid profile parameters.

Lipid profile parameters	Group 1	Group 2	P value
Triglyceride (mmol/l)	120.5±1.89	152.1±1.52	<0.05
HDL cholesterol (mmol/l)	55.2±1.9	61.5±1.23	<0.05
LDL cholesterol (mmol/l)	90.1±1.25	102.8±1.45	<0.05
Hb1Ac%	4.8%	6.1%	<0.05

From the above Table, it was identified that the triglyceride level in group 1 was 120.5±1.89 mmol/l and in group 2 was 152.1±1.52 mmol/l. There was a statistically significant difference between the two groups with regards to the triglyceride level.

The HDL Cholesterol level in group 1 was 55.2±1.9 mmol/L and was 61.5±1.23 mmol/l in group 2. There was a statistically significant difference among the two groups with regards to HDL Cholesterol level.

The LDL Cholesterol level in group 1 was 90.1±1.25 mmol/l and in group 2 was 102.8±1.45 mmol/l. There was a statistically significant difference among the two groups with regards to LDL Cholesterol level.

Hb1Ac% in group 1 was 4.8% and in group 2 was 6.1%. There was a statistically significant difference between the two groups with regards to the Hb1Ac % level.

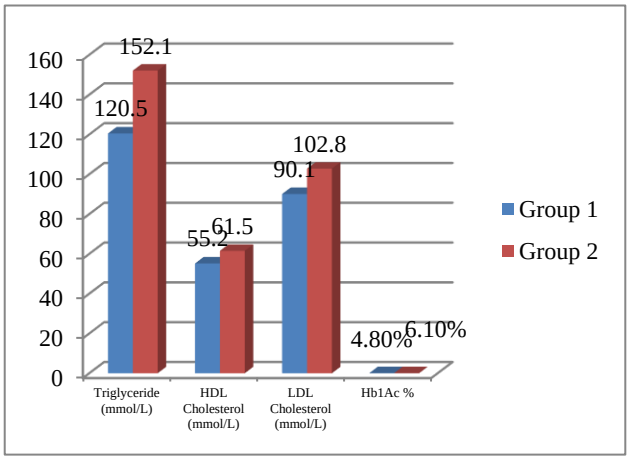

Figure 2: Lipid profile.

DISCUSSION

Table 3: Lipid profile parameters.

Lipid profile parameters	Study	p-value between groups
Triglyceride (mmol/L)	Present study	<0.05
	Priya et al. (2019)[6]	<0.05
	Brown et al. (2018)[7]	<0.05
HDL cholesterol (mmol/L)	Present Study	<0.05
	Priya et al. (2019) [6]	<0.05
	Brown et al. (2018) [7]	>0.05
LDL cholesterol (mmol/L)	Present Study	<0.05
	Priya et al. (2019) [6]	<0.05
	Brown et al. (2018) [7]	<0.05
Hb1Ac %	Present Study	<0.05
	Priya et al. (2019) [6]	-
	Brown et al. (2018) [7]	<0.05

As per the present study, there was significant difference in the lipid profile between the two groups. This is because of the nutritional contents of Dvit Cardio such as Arjuna extract and Beetroot extract. Similar results were obtained in the study of Priya et al. (2019) who also found that Arjuna extract in diet significantly helps in controlling lipid profile of the patients.[6]

Further, Brown et al. (2018) concluded that Beetroot extract also significant helps in controlling the lipid profile of the patients, and t findings of present study are in line with the study as Brown et al. (2018) as it also found that having Beetroot extract in diet significantly helps in controlling lipid profile.[7]

CONCLUSION

From the above comparison, it was found that Dvit Cardio had positive health impact on the lipid profile parameters of the participants included in the study as compared to the competitor brand. It was also found that Dvit Cardio was also beneficial for diabetic patients owing to its sugar-free properties.

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Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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