

Formulation and Evaluation of Anti-Cardiovascular Polyherbal Chocolate

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ABSTRACT

Chocolate is a good sweet. It is produced by addition of sugar and the nutrition level of dark chocolate is very high and it is the richest source of energy. The objective of this study is to design and fabricate chocolate. It is also called as chocolate drug delivery. Chocolate is product proceed from dark chocolate rich in flavonoids and antioxidant compounds. The global consumption of chocolate at different age and for different purpose served as the impetus for the study. The high demand for chocolate in the market has resulted in the potential for adulteration of chocolate product to meet this demand. These chocolates, compose of various ingredients with numerous medicinal properties, aim to nourish the body without any adverse effect.

Keywords: Date seed powder ,Dark compound ,Milk compound, Butter ,Milk

INTRODUCTION

Need of Investigation

Dates seeds powder, derived from the seeds of the date palm. Is gaining interest for its potential health benefit S particular IS for cardiovascular and nutritional applications. Investigating dates seeds powder is essential to establish its safety, quality and efficacy. Dates seeds are present in the minerals, magnesium, calcium phosphorous, sodium and iron. Potassium are present in the large quality and concentrations is 3790mg/kg. The formulation and evaluation of anti -cardiovascular polyherbal chocolate involves several steps and investigation to ensure the product is safe, effective and acceptable.

1. Identification and authentication of herbs.
2. Phytochemical Optimization of herbal extracts ratio.
3. Chocolate base selection.
4. Excipient and additives compatibility.
5. Method of incorporation of extracts.
6. Process of optimization.
7. Physicochemical evaluation.
8. Moisture content and water activity.
9. Stability testing.

OBJECTIVE:

1. To polyherbal chocolate is used for treatment of cardiovascular.
2. To a best drug delivery system specifically for children
3. To chocolate are easily chewable and palatable
4. To herbal ingredients are most useful for the treatment of cardiovascular.
5. To chocolate are also used for the treatment of inflammation cancer and immune system
6. To Phenyl ethyl amine also present in chocolate that lowers blood pressure, also blood sugar level that gives the feeling of wellness

Chocolate is a sweet and usually brown in colour. Dark chocolate is also known as black chocolate. It is produced by addition of fat and sugar. Chocolate consumption has increased extremely in the world in the 21st century. Chocolate is a food which used for various purposes like brain function, immune system, flavouring and sweetner. The chocolate can be taken as a paste, liquid, or solid. The simple chocolate would be a fat continuous matrix which contains particle of sugar and in the case of milk chocolate it contain milk powder

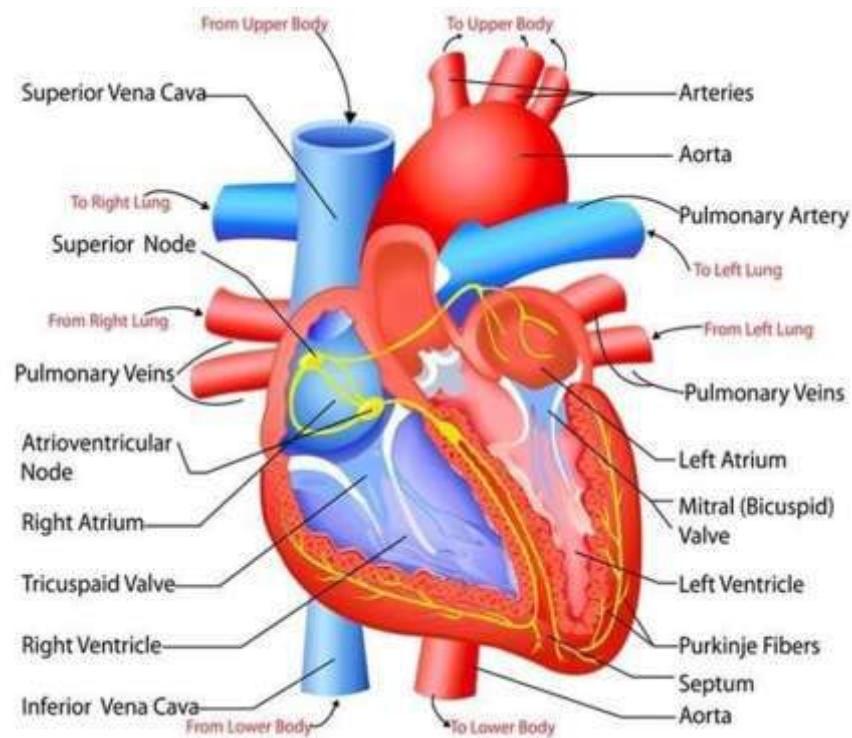
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Chocolate is a versatile food that can be combined in various ways to create diverse taste and texture. It is an ideal drug delivery system, specially for children and young people. Herbal formulation means a dosage form consisting of one or more herbs of begin to herbs in specifies quantities to provide specific nutrition, cosmetic benefits are used for diagnose, treating mitigate or alter the body function.

Causes:

- 1) Unhealthy diet
- 2) Lack of physical activity
- 3) Smoking
- 4) High blood pressure





Dates Seed:

1. Scientific name: Phoenix dactylifera. L.
2. Family: Arecaceae.
3. Common names: Dates seed, date pits.
4. Part of plant: Seeds of the date fruit.
5. Geographical distribution: The middle east, north africa, and parts of south asia.
6. Description: Dates seeds are the hard, inedible seeds found inside the sweet, fleshy date fruit. They are oblong, brown, and make up about 10-15 percent of the total weight of the date fruit.
7. Nutritional profile: Dates seeds are not typically consumed directly but are used as a powder or extract in supplements or functional foods.

Butter Profile:

Butter is a dairy product made from the fat and protein components of milk or cream. Rich, creamy, and sometimes nutty or sweet.

Texture: Smooth, creamy, and spreadable.

Aroma: Mild, nutty, or buttery.

Types of butter:

1. Sweet cream butter.
2. Cultured butter.
3. Clarified butter.
4. Salted and unsalted butter.

Physical properties:

1. Appearance and texture.
2. Flavor and aroma.
3. Melting and smoke point.

Milk:

Milk is a nutrient-rich-liquid food product by mammals for their young, providing essential nutrients like protien, calcium, vitamins, and minerals for growth and development. Milk is a excellent source of vitamins and minerals. Milk is a white liquid substance. Milk is a helps in the formation of bones. It bones stronger and gives us energy.



Butter:

Butter is a dairy product made from churned cream, consisting of about 80-82% butterfat, water, and milk solids. It is a versatile ingredient used as a spread, a cooking fat, and in baking, and can be made from various types of milk such as a cow, goat, or sheep. Butter is a concentrated source of fat-soluble vitamins A and D, as well as calories, so it should be consumed in moderation.

RESULTS AND DISCUSSION:**1. General appearance:**

Colour- Dark brown

Odour- chocolate with no burned Taste - sweet

Texture - smooth

2. Hardness:

Hardness texture was used to measure the hardness of the chocolate.

Initial reading on hardness texture = 3.5kg/cm After breakage of chocolate = 805kg/cm

Therefore, hardness present in the chocolate formulation = $8.5 - 3.5 = 5\text{kg/cm}$.

3. Blooming test:

No bloom was observed.

CONCLUSION

In the present study, we formulated herbal chocolate having anti-cardiovascular activity natural ingredients. The natural use for formulation of chocolate are dark chocolate, white chocolate, sugar, dates seed powder. This active constituent contains the glycoside, carbohydrates, alkaloids, and flavonoids. They are used for the treatment of cancer, inflammation, and heart. Dates seed powder contains a rich amount of dietary fibre, total carbohydrates, minerals, antioxidant activity, and flavonoid compounds. Dates seed powder could be used until 50% substituted. Here I conclude F3batch is successful for formulation.

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