Compare absorbance value of medicated glycerin prepared by *Berberis vulgaris* - Q and *Alfalfa* - Q with qualitative assessment by UV- visible spectrophotometer

Sadhu Shreyansh, Chakraborthy GS, Pramanick Monimala, Bhadoria Suraj Singh, Desai Poorav, Bhatt Tejas and Reddy Santosh

DOI: [https://doi.org/10.22271/27889246.2023.v3.i1b.56](https://doi.org/10.22271/27889246.2023.v3.i1b.56)

Abstract

**Background:** Through this research, work prepared homoeopathic medicated glycerol with *Berberis vulgaris* - Q and *Alfalfa* - Q in the drug and vehicle ratio (1:9) with qualitative assessment done by UV-Visible spectrophotometer.

**Methodology:** Homoeopathic medicated glycerine was prepared by the mixing *Berberis vulgaris* and *Alfalfa* - Q in a definite proportion of drug and vehicle as (1:9) separately. The samples were divide into three groups as Standard group, Main group and control group.

**Results:** The absorbance value of *Alphalpa* in Glycerine is 0.884 at 411.00 nm and absorbance value of *Berberis vulgaris* in glycerine is 0.891 at 473.00 nm, *Alfalfa* Q is 0.996 at 673.00 nm, *Berberis vulgaris* Q is 0.997 at 529.00 nm

**Conclusion:** Prepared glycerine from standard Berberis vulgaris- Q and *Alfalfa* - Q separately gives better results analysed by UV- visible spectrophotometer.

**Keywords:** UV- visible spectrophotometer, Glycerol, alfalfa Q, Berberis vulgaris Q

**Introduction**

Glycerine, specifically 1, 2, 3-propanetriol, is a possibly significant biorefinery feedstock and is a side-effect of biodiesel creation. It is delivered during the transesterification of vegetable oils or creature fats [1]. In our past study [2], we revealed that glycerine is productively switched over completely to lactic corrosive under soluble aqueous circumstances. In expansion, H2 is delivered in practically a similar yield as lactic corrosive. Lactic corrosive is getting consideration as a material for delivering biodegradable lactic corrosive polymers [11]. We presently report that NaHCO3 (as a wellspring of CO2) is switched over completely to a formate salt when glycerine is utilized as a diminishing specialist in HTW. Glycerine is changed over completely to lactic corrosive under these response conditions. The impact of response conditions was likewise explored exhaustively, for example NaHCO3 amount, NaOH fixation, response temperature and time. Glycerine (close to 100%), NaHCO3 (almost 100%) and NaOH (96%) were gotten from Wako Unadulterated Compound Ventures, Osaka, and utilized as test materials. In this review, NaHCO3 was utilized as a CO2 asset to improve on tasks and to take into consideration a precise measurement of CO2. 8d The schematic drawing of the exploratory set-up can be found elsewhere [12].

**Berberis vulgaris**

*Berberis vulgaris* L. var. asperma Wear (Berberidaceae) is a shrubbery with yellow to brown shaded bark. The plant has obovate leaves, bearing pendulous yellow blossoms in spring prevailed by elongated red shaded organic products (barberry). Different pieces of this plant including its root, bark, leaf and natural product have been utilized as society medication for long in Iran. In Iranian conventional medication a few properties, like antibacterial, antipyretic, antipruritic and antiarrhythmic exercises for various pieces of Berberis vulgaris have been accounted for with obscure systems of activities (Zargari, 1983; Aynehchi, 1986; Nafissi, 1990) [7, 11]. As it is progressively accepted.
Now that customary drugs become more famous around the world, there is aggregating proof proposing restorative plants are limitless repositories of medications. The astounding primary variety among their dynamic parts makes them a valuable wellspring of novel helpful mixtures. Scientists with interest in regular items have strengthened their endeavors towards logical assessment of conventional prescriptions. Past pharmacological investigations on berberine, an isoquinoline alkaloid found in root and bark of Berberis vulgaris, exhibited that it had strong vasodilatory and antiarrhythmic action, and delayed the activity possible length in Purkinje strands and ventricular muscles (Chiu et al., 1991; Ricciopo, 1993; Kathleen, 2000) [9, 5]. There is some proof for calming and antinociceptive impacts of isoquinoline alkaloids found in Berberis vulgaris (Kupeli et al., 2002) [6].

Alfalfa
Medicago sativa Linn. Regularly known as ‘Lucerne’ or Hay’, has a place with the family fabaceae broadly happens in the caucasian district and in the rocky districts of Iran, Afganist and neighboring regions. The developed structure likely emerged in western Persia, whence it has spread to numerous nations. It is utilized as tonic due to presence of high level of proteins (60.5%), minerals, catalysts, nutrients and so forth. Horse feed is an important wellspring of nutrients A furthermore, E new is plentiful in L-ascorbic acid (1.78 mg/g) in any case, it loses 80% of nutrients on drying. The catalysts announced in hay are amylose, emulsion, coagulase peroxidase, erepsin, lipase, invertage and pectinase (W.I., 1962; Uphof, 1968) [7].

Materials & Methodology
Type of study: Analytical study.

Site of study: CR4D (Centre of Research for development Parul University).

Duration: 2 Week
Tools: UV-visible spectrophotometer (Double beam).
Materials: Beaker (100 ml capacity), pipette 10 ml capacity, Glass rod, measuring cylinder (100 ml capacity).

Medicinal products: Berberis vulgaris- Q, Alfalfa- Q was purchased from GMP Certified Pharmaceutical Pvt. Ltd. (SBL), Glycerine Purchase from Chemdyes Corporation Laboratory chemicals, Industrial chemicals, solvents, metallurfy chemicals, food preservatives, filter papers, safety Goods.

Vehicle: Glycerine

Preparation
Preparation of Homoeopathic medicated glycerol with Berberis vulgaris- Q, Alfalfa- Q and vehicle glycerine in a definite proportion of drug and vehicle as (1:9) separately.

Standard sample
1. Berberis vulgaris- Q

2. Alfalfa- Q

Main sample
1. Alfalfa- Q + Glycerine (1:9) 10 ml
2. Berberis vulgaris- Q + Glycerine (1:9) 10 ml

Control sample
1. Glycerine

(Steps to follow)
Sterilization: Cleansing of all the equipment’s by strong alcohol with drying by Hot air oven for 15 minutes.
Measurement: Take appropriate amount of Medicine and vehicle with pipette (10 ml capacity) in the clean, dry beaker. Like; Medicine.

1. Homoeopathic Medicated glycerol (1:9): Alfalfa Glycerine
2. Homoeopathic Medicated glycerol (1:9): Berberis vulgaris glycerine

Mixing
Apply gentle mixing the given formulation by glass rod until and unless if homogeneous mixture formed.

Filling
The prepared mixed variety of formulation of Homoeopathic medicated glycerine should be filled in the hard glass bottle. Which should be clean, sterile and non-coloured bottles.

Storage
The given formulation should be preserved into the hard glass bottle, which should be away from dampness, sunlight, strong smelling bottles and cool, dark place.

Labelling
Paste the label on the bottom of hard glass bottle as;

- Name of formulation
- Name of Medicine with quantity
- Name of vehicle with quantity
- Drug and vehicle ratio
- Manufacture Date
- Manufacturer By
- Indications
- Storage

Analysis
The prepared formulation of in all ratio were categorized into three main groups. Such as; Standard group, Main sample group and Control group. Around (3-4) ml of samples from each group were placed in the sterile, dry cuvette in UV- VIS Chamber.

Results
The absorbance value of Alphalpa Glycerine is 0.884 at 411.00 nm and absorbance value of Berberis vulgaris glycerine is 0.891 at 473.00 nm, Alfalfa Q is 0.996 at 673.00 nm, Berberis vulgaris Q is 0.997 at 529.00 nm.
Fig 1: Absorbance capacity of *Alfalfa* glycerine

Fig 2: Absorbance capacity of *Berberis vulgaris* glycerine

Fig 3: Absorbance capacity of glycerine
Conclusion
The prepared formulation of homoeopathic medicated glycerine shows miscibility in respect of drug and vehicle ratio, after assessment done by UV-Visible spectrophotometer.

Acknowledgement
Authors would like to thanks Dean and principal Dr Poorav desai and CR4D Department for the support in this research work.

References