

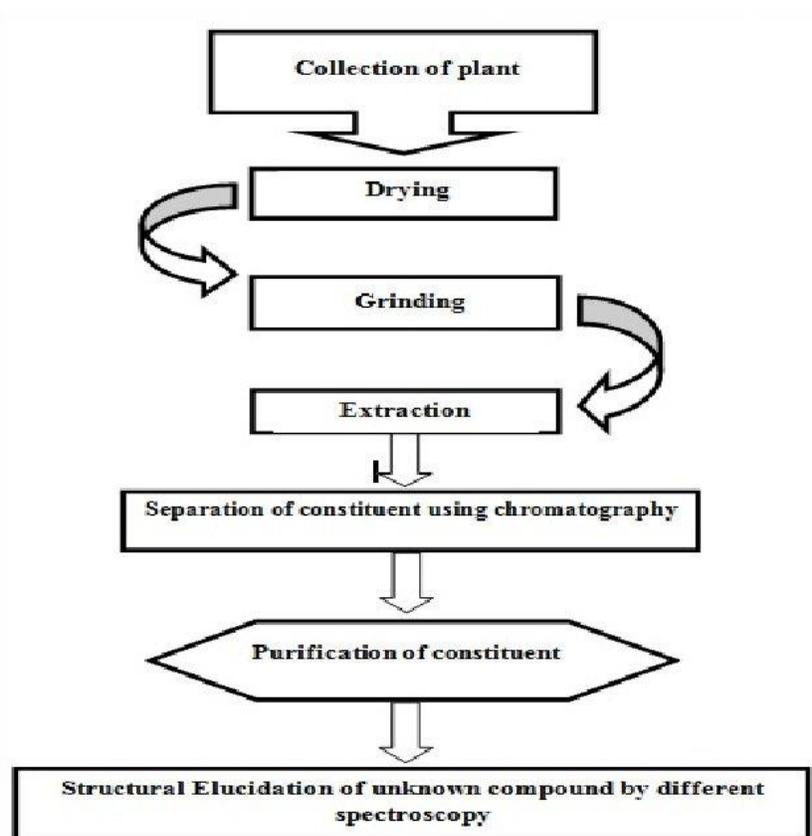
Phytochemical evaluation of drugs

- Phytochemicals are substance produced mainly by plants, and these substances have biological activity. In the pharmaceutical industry plants represent the main source to obtain various active ingredients.
- They includes phenolic compound, terpenoids , alkaloids, flavonoids, glycosides, lignins, saponins, sterols, tannins, anthraquinone, and reducing agents
- More than 500 individual dietary phytochemicals have been identified in plant foods (ie- fruits ,vegetables,whole grains, legumes and nuts) with varying content and composition .
- Phytochemical investigation may be defined as phytochemical screening confirmed the presence of a large array of phytoconstituents .
- Process involved in phytochemical investigation
- In this method , aqueous and organic extracts are prepared from those plant sample that are the reservoirs of secondary metabolites such as leaves ,stem, roots , or bark .
- It is not suitable method for efficient separation.

Noteskarts

Subscribe Our YouTube Channel For Video Classes

Process



Four different stages of phytochemical behaviour of plant material -

1. The procurement of raw material and quality control.
2. Extraction, purification and characterisation of the constituents of pharmaceutical interest and in process quality control .
3. Investigation of biosynthetic pathway to particular compounds and
4. Quantitative evaluation.

Noteskarts

Subscribe Our YouTube Channel For Video Classes

Types of phytochemical test

Two types -

1. Quantitative chemical test-

- Determine the purity or concentration of the constituent.

2. Qualitative chemical test-

- They are used for determination of different types of adulterents.
- Mainly used qualitative chemical tests

1. For alkaloids -

- Drageandorff's test
- Meyer's test
- Wagner's test
- Hager's test

2. For glycosides-

a. Cardiac glycosides

- killer kiliani test
- Baljet test
- Legal test
- Raymond's test

b. Anthraquinone glycosides

- Brontragers test
- Modified brontragers test

c. Saponin glycosides

- Foam test
- Hemolysis test

d. Flavonoids test

Noteskarts

Subscribe Our YouTube Channel For Video Classes

- Shinoda test
- Amonia test

3. For carbohydrates

- Molish test
- Fehling test
- Benedict test
- Tollan's reagent

4. For protein -

- Biuret test
- Millions test
- Xanthoproteic test

5. For Amino acids-

- Nin-hydrin test.