



Definition, History, Present Status And Scope Of Pharmacognosy

Pharmacognosy / Chapter - 1

Pharmacognosy:-

Pharmacognosy is defined as the scientific and systematic study of structural, physical, chemical and biological characters of crude drugs along with their history, method of cultivation, collection and preparation for the market.

- The word Pharmacognosy is derived from Greek word viz.
- Pharmakon: A Drug
- Gignosco : To acquire the knowledge

The Pharmacognosy is the subject of crude drugs obtained from the plant, Animals and Minerals origins.

Source of crude drugs:-

- 1) Plant Source:- Neem, Babul, Tulsi, Saffron, Clove.
- 2) Animal source:- Honey bee, bee wax, Silk, Insulin, Shark, Liver oil, Thyroid.
- 3) Mineral source:- Chalk, bentonite, asbestos, talc, kaolin, Fuller's earth.
- 4) Micro- Organism: - Antibiotics,
- 5) Marine :- Salt, Protozoa, etc.

History of Pharmacognosy

Egyptians were aware of medicinal uses of several plants and animals and also about human anatomy.

The Greek physician **Hippocrates (460- 360 B.C)** known as '**Father of medicine'**

Aristotle the renowned philosopher (384 - 322 B.C.) is well known for his studies on animal Kingdom and **Theophrastus (370 - 287 B.C.)** for the plants Kingdom.

Pedanius Dioscorides, (040- 080 A.D.) A Greek physician in 78 A.D. described several plants of medicinal importance in "De Materia Medica".

Pliny the Elder (23-70 A.D.) who compiled 37 volumes of natural history. **Greek pharmacist Galen (131 - 200 A.D.)** described various methods of preparation containing active constituents of crude drugs. The branch of dealing with the extraction of plant and animal drugs is known as Galenical Pharmacy.

Indian history of medicinal plants is dated back to 3500 B.C. The curative properties of plants have been mentioned in the Suktas Of Rigveda and Atharvaveda.

Ayurveda has also described good number of plants with their therapeutic properties. The ancient well known known treaties in Ayurveda the Charak Samhita and Susruta Samhita are written by **Charaka And Susruta** Respectively.

Scope of Pharmacognosy

The crude drugs are obtained from plants and only a small number comes from animals and mineral origins.

Pharmacognosy has wide and broad scope in the field of Pharmacy and its branches of them are given following:-

- 1) Cultivation and domestication of the medicinal plants.
- 2) Analysis and Phytochemical
- 3) Preparation of general tonic and stimulation.
- 4) The steroid industry
- 5) Herbal Preparation herbal medicine
- 6) Flavoring agent and perfumes.
- 7) Tissue Culture
- 8) Phytomedicine
- 9) Natural Products.

1 Analysis and Phytochemical:- Many Bioactive biomolecular are extracted and isolated from the crude drugs.

They are analysed by modern technique such as Thin Layer Chromatography (TLC),

High performance Liquid Chromatography (HPL), Gas Chromatography.

2 Herbal Preparation herbal medicine:- Herbal medicine have become more popular in recent years because it is believe that these do not have and toxin or side-effects as compare to the modern medicine.

3 Flavoring agent and perfumes:- Large number of aromatic plants which are extensively used as Flavoring agent, perfume, spicy and medicine Ajowan, Lemon grass, etc.

4 Tissue Culture:- Plant tissue Culture broadly referral to the in-vitro cultivation of plant seed and various parts of the plants organ embryo, tissue, single cell protoplast.

5 Phytomedicine :- Herbal based traditional medicine practice that uses various plant material in modalities considered both prevention and therapeutics.