

## ELECAMPANE AND JOB'S DISEASE

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### ABSTRACT

Elecampane (*Inula Campana*) sometimes referred to as *Inula helenium* is famous for its successful use as a medication by Prophet Job who had chronic sore boils. Hippocrates described it as a good and effective cure for chronic skin eruptions and itch etc. Elecampane is also reputed to relieve all kinds of pains, specially those arising from chills, and animal bites. In traditional medicine, Elecampane was and is still used in different forms for the cure of many diseases.

Elecampane is a plant whose botanical name is *Inula campana*, Fam. Compositae (sometimes referred to as *Inula helenium*). Also called Elephant's ears. Arabic name "Cost Shami" or "Rasan". In traditional medicine, history recalls the story of prophet Job, who had chronic sore boils which lasted for 18 years after which, God inspired him to use a certain plant as a medication for his grave illness, and a complete cure was achieved. This plant was Elecampane. It still keeps its historical property through its Egyptian name "Rara Ayyoub." The Greek physician, Hippocrates, described Elecampane as a good and effective cure for chronic skin eruptions and itch. Elecampane is a short plant, with yellow flowers, and digitalis-like leaves. The roots are pungent and irritant, with bitter taste and the odour resembles that of pepper and camphor (sometimes, the taste may be

also astringent).

The roots are the main part used while the seeds are rarely used in medicine. The leaves are adulterants of Digitalis.

The plant grows in central and southern Europe, the Mediterranean region where it grows wildly in Egypt, Central Asia and Russia.

The roots are 6 inches long, 1-2 inches long and 1/2 - 1 inch thick, very fleshy (sliced for commercial purposes either longitudinally or transversely). The longitudinal slices have the bark overlapping, while the transverse slices are concave, somewhat radially straight, externally it is irregularly wrinkled and brownish, while internally, it is white when fresh, greyish after drying, of a peculiar aromatic odour and an aromatic, bitterish and pungent taste.

The roots are hygroscopic and flexible in damp weather, but break when

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dry with a short fracture. The bark is 1/2 inch or more thick, the inner portion radiates near the cambium line, the medullium has small fibrovascular bundles and broad medullary rays, and all parts of the roots are dotted with shining yellowish-brown resin cells.

Elecampane contain a little volatile oil, some acrid resin, a bitter crystalline principle "Helenin," wax, tannin, and a polysaccharide "Inulin" (44%), saponins, mucilage. The volatile oil contains alantolactone and isoalantolactone. Helenin crystallises from the concentrated tincture, mixed with water, has the formula ( $C_6 H_8 O$ ), which is insipid, almost insoluble in water, crystallises in needles, fuses at  $110^\circ C$ , and is converted by nitric acid into oxalic acid and a resinous body. On distilling the root with steam, inula camphor is produced, also called alant camphor, with the formula ( $C_{10} H_{16} O$ ), and inulol or alantol, with the formula ( $C_{15} H_{20} O_2$ ).

Inulin is a polysaccharide resembling starch, with the formula ( $C_{12} H_{20} O_{10}$ ), and is contained in the subterranean parts of the compositae family. It is obtained by forcibly expressing the grated juicy roots, when a portion will deposit on standing while the remainder may be precipitated by alcohol. It is a fine white powder, tasteless, inodorous, insoluble in alcohol, soluble in hot water.

Elecampane powder may be used in a dose of 1-4 gm. Internally, while the syrup is in a dose of 15-60 ml. Helenin is taken orally in a dose of 1/6-1/2 grain.

Helenin has antiseptic properties, recommended as a gargle in ozaena, and internally in diseases of the respiratory organs for the reduction of inflammations, relieves speedily chronic bronchitis, and useful in anthrax and acid dyspepsia.

Elecampane is also useful in skin eruptions, itch and chronic ulcers and inflammations (due to its content of helenin which destroys bacilli and other microbes). Also reputed to relieve all kinds of pains, specially those arising from chills, and animal bites. The root is commonly preserved as pectoral candy and in the preparation of absinthe drink.

In traditional medicine, Elecampane was and is still used in different forms for the cure of many diseases. Hundreds of years ago, Elecampane was used in the form of an aqueous extract prepared from the roots by boiling 18 gm. of roots and 144 gms. of water, then filtered, and the filtrate taken orally, three times daily, giving good results in relieving kidney, spleen, back, joints and anginal pains. This aqueous extract may also be used or better the root tincture, for the treatment of chronic skin eruptions such as boils, pimples (mixed with honey), malignant skin tumours, ulcers and inflammations.

Hippocrates also described Elecampane as a good stimulant for the brain, stomach, uterus and spleen. Also relieves cough and asthma and rheumatic pains, all internally, while in ointment form for the skin eruptions.

Also, Elecampane has a reputation

in traditional medicine as diaphoretic, emmenagogue, choloretic, cholagogue, cures uncontrolled night (bed) micturition, vermifuge, anti-emetic, relieves migraine pains, and has anti-diarrhoeal properties due to its astringent effect.

In powder form, Elecampane roots were sprinkled on insect bites to stop bleeding and prevent infection. Whole roots were sometimes pickled and eaten to relieve indigestion and increase appetite. Also, a tincture made from the roots, painted on loose gums (now-a-days referred to as pyorrhoea), will cure them.

From the above mentioned information about Elecampane's property of curing chronic skin inflammations, suggestion of curing Job's disease was fully investigated.

Job's disease is what is termed "Pemphigoid or Parapemphigus" in modern dermatology. It affects old people, between 65-75 years and over. Unlike Pemphigus, the patient's skin is affected first by a premonitory itching eruption, which can resemble eczema or urticaria. The blisters appear after scraping of the skin, and are subepidermal in situation. They are large, tense, filled with serum or blood and in contrast to those of Pemphigus, remain intact for several days and then rupture.

Histologically, the epidermis is intact, the bulla is always subepidermal. This disease was considered fatal until systemic corticosteroids were introduced into its medication.

For more than 40 years, this disease was wrongly referred to as Jacob's disease instead of Job's disease. According to the Old Testament, we read in The Book of Job, chapter 2, verse 7; "So went Satan forth from the presence of the Lord, and smote Job with sore boils from the sole of his foot unto his crown." And in verse 8, we read and he took him a potsherd to scrape himself withal; and he sat down among the ashes."

Also mention of Job's disease is found in the book *Kesus ai-Anbia* (Stories of the Prophets), by al-Thalabi, of the chapter on the Prophet Ayyoub (Job) and the story of his illness,.. while Ayyoub was praying he felt strong heat sensation in all his body, and then bulla appeared throughout his entire skin, with profound itching, so strong that nothing could stop it even with scraping by his fingernails, coarse cloth, stones till all his skin has fallen and putrefied. Furthermore, his fingers has showed its bones, could not lift his hands to eat, one can see through his ears, his abdomen wall loosened...". "... then God inspired him to rub his body with bundles of a herb after which complete cure was achieved."

Another scientific error related to this plant "*Inula helenium*", is that its Arabic name in Egypt is Rara Ayyoub, but given to another plant growing wild along the water canals, and belongs to the same Compositae family. This plant is *Gnaphalium luteoalbum*, very similar to *Inula helenium* in external features (sometimes named *Pulicaria arabica*).

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सारांश

## ऐलेकेम्पेन तथा जोब रोग

- समीर याह्या अल-गम्माल

जीर्ण व कष्टप्रद व्रणों से ग्रस्त पैगंबर जोब द्वारा उस रोग की चिकित्सा में ऐलेकेम्पेन नामक औषधि का सफल प्रयोग किया जाने के कारण यह औषधि सुप्रसिद्ध है। हिप्पोक्रेट ने कंडु एवं जीर्ण त्वक विकारों इत्यादि के उपचार के लिये भी इसका एक अच्छी तथा प्रभावकारी औषधि के रूप में वर्णन किया है। सभी प्रकार के शूल विशेष रूप से ठंड के कारण उत्पन्न अथवा जीव-जंतु दंशन जन्य शूल हरण के लिए भी यह प्रसिद्ध है। अनेक प्रकार के रोगों की चिकित्सा के लिये पारम्परिक चिकित्सा पद्धति में प्राचीन काल से लेकर आज तक ऐलेकेम्पेन औषधि का विभिन्न स्वरूपों में प्रयोग चला आ रहा है।