

A panoramic view on ethnobotanical, chemical, pharmacological and homeopathic uses of Kreosotum

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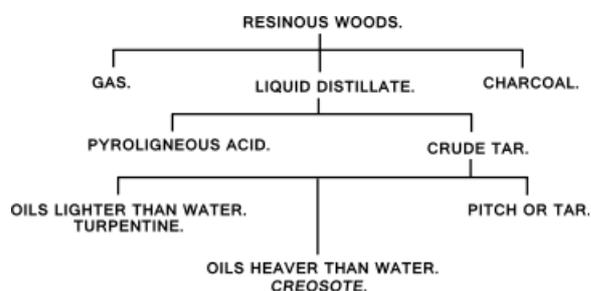
Abstract: Kreosotum is a medicinal plant product that obtained from distillation of the wood tar and uses for treatment of various diseases. It is well known plant since 18th century. Traditionally it is used for the inflammation, pain, rheumatism and it is best anti-septic as well. It has prominent action on gastric tract due to its constituent guaiacol. In homeopathic system of medicine it is the remedy for haemorrhages, coarctive discharges. The present attempt has been made together the ethnobotanical, traditional, pharmacological and homeopathic uses of kreosotum.

Systematic taxonomy

Source	A product of destructive distillation of wood tar
Common name	English: Creosote French: Creosote German: Kreosote In urdu: Beechwood kreosote
Part used for preparation of homeopathic mother tincture	Solution of Kreosote in rectified spirit
Homeopathically proved by	Dr. Syrius of Germany and Dr. Wahle of Italy

Description of Kreosotum

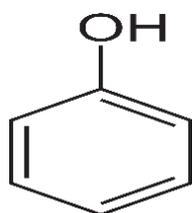
Kreosote is a yellow/colorless and oily liquid, obtained from the wood tar by distillation process, having high refractive index (Reynolds 1878). It has smoky, penetrating odour and caustic, burning taste. It distills between 200 - 230°C (Gibson 1970).



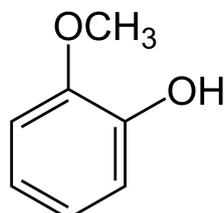
Description of Kreosotum (Creosote)

Active principle

Kreosotum liquid is the combination of phenoles including guaiacol (2-methoxyphenol), 4-methylguaiacol (2-methoxy-4-methylphenol), *m*-cresol (3-methylphenol), *p*-cresol (4-methylphenol), methylcresol, *o*-cresol (2-methylphenol) and phenol (Gershenfeld, Pressman et al. 1933).



Phenol



Guaiacol

Structural formulas of phenol, guaiacol, orto-cresol, meta-cresol and para-cresol

Traditional uses of Kreosotum

Traditionally, Kreosote was used to treat infertility, kidney and gallbladder stones, rheumatism, arthritis, pain and inflammation (Nauman 2004). It was also used to reduce the complications of diabetes. Creosote was also taken as a nutritional supplement (Hager 1882). In the 1950s, creosote bush was used as a disinfectant or antiseptic to preserve food and natural fibers (Partha and Mandal 2001) (Pankaj, Arjun et al.).

Method for preparation of Kreosotum mother tincture

A product of distillation of wood tar (Kreosotum) is used to make its mother tincture. 100 ml of Kreosotum and sufficient quantity of strong alcohol are required to make one litre of the mother solution (Verma and Vaid 2002).

Pharmacodynamics of Kreosotum mother tincture

Kreosotum affects all mucous membranes, the vagina, intestinal canal, kidneys, female sexual organs, skin, blood, cerebro-spinal system. It also acts as a disinfectant and antiseptic (von Keller and von Keller 1973, Gross 1990).

Physio-pathological changes produced by Kreosotum during proving

Convulsions and paralysis are produced by kreosotum through the cerebro-spinal system. All mucous membranes of the body, especially of the digestive system, were affected by Kreosotum, which caused catarrhal inflammation leading to ulceration with symptoms of nausea, vomiting, retching and diarrhoea (Kinder, Phillips et al., Lefevre 2005). When kidneys

affected then symptoms of frequent micturition with cause strangury along with passage of dark color urine (Vithoulkas 2002). Lymphatic secretions are stopped and acrid due to action of kreosotum on lymphatic system. It acts upon the female reproductive organs and produce catarrhal conditions lead to increase menstruation, comes too early and persists too long, metrorrhagia, excoriating uterine secretions. It causes eczema, itching and skin eruptions of copper-color. Neuralgic pains are produced with aggravated by rest. (Gibson 1987) All discharges of body become disorganized, excoriating and offensive cause ulcerations. Blood also decomposes and liquifies lead to copious bleeding from small wounds (Satti 2005).

Homeopathic uses

Kreosotum is used to treat all catharral conditions of the body where corrosive and offensive discharges are present such as leucorrhoea in case of affection of female genital system. It also uses to cure passive hemorrhages of dark, offensive and clotted blood, even excessive bleeding from small wounds (Bhateja, Arora et al. 2013). It treats gastromalacia, gastritis, carious decay to teeth, gangrenous, cancerous and putrefying ulcers, incontinence of urine during first sleep. It use in poorly developed children and post-climacteric ailments (Grandgeorge 2010).

Relationship with other homeopathic medicine

Ars., Phos. and Sulph. are complementary of Kreosotum in cases of cancer and diseases of malignant tendency. Carb-v is inimical of kreosotum. Its action is antidoted by Aconite and Nux.vomica (Nandy, Bandyopadhyay et al. 2018).

Pharmacological activities

Kreosote (beechwood) was evaluated for categorization of its volatile constituents and their antioxidant potential. (Lee, Lee et al. 2005) GC (gas chromatography) and GC-MS (gas chromatography-mass spectrometry) were used to evaluate its volatile constituents. The chief volatile components of creosote were guaiacol (25.2%), 4-methylguaiacol (21.4%), m-cresol (8.3%), p-cresol (7.9%), o-cresol (4.6%) and phenol (2.8%). (Ogata, Matsushima et al. 1995) Three different chemical tests were used to evaluate antioxidant potential of creosote. This study expressed significant antioxidant potential of creosote (Seltzer 1942).

In 1933, a comparative study was conducted to evaluate sixteen samples of Kreosote and their constituents for their bactericidal power and expectorant activity. Study expressed significant but different results for different samples (Gershenfeld, Pressman et al. 1933).

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