

Coconut oil compound ointment

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In this age of prescription products, a need is occasionally felt for topical agents that are prepared by a skilled pharmacist and tailored to the individual requirements of patients. In this feature, we will study prescriptions that are still relevant in practice. One such prescription that is a valuable weapon for treating scalp psoriasis is coconut oil compound ointment.

COCONUT OIL COMPOUND OINTMENT (ST. THOMAS' HOSPITAL, LONDON, UK)¹

Coal tar solution	12 gm
Precipitated sulfur	4 gm
Salicylic acid	2 gm
Coconut oil	60 ml
Yellow soft paraffin	9 gm
Emulsifying wax BP	13 gm

Sig: Apply at night into scalp. Shampoo in the morning

ROLE OF THE INGREDIENTS

Coal tar solution

Coal tar is a distillate of bituminous coal. Coal tar solution (BP, USP) is prepared by extraction of coal tar in the presence of polysorbate 80 with alcohol. The primary effect of coal tar is the reversal of parakeratosis.² There is probably a direct effect on the granular layer by the release of lysosomes followed by mitotic stimulation. Coal tar solution is also a mild antipruritic.³ A drawback of coal tar is its messiness and odor. Phototoxicity and irritation may be encountered, but tar rarely sensitizes.

Precipitated sulfur⁴

Sulfur is an antiseptic with antiparasitic, anti-acne and anti-seborrheic properties. These may depend on the disulfides and polythion acids that result from the interaction of sulfur and organic substances. Precipitated sulfur is fine grade and a more effective form. It is a soft, pale grayish-yellow or greenish-yellow powder that, unlike other grades, is free from crystalline particles.

Salicylic acid

Salicylic acid occurs in nature as willow bark (salix) and was used by lay healers. It is sparingly soluble in water, readily soluble in alcohol and extremely soluble in castor oil. In the early 20th century, Unna described the action of salicylic acid as keratoplastic at low concentrations, and as keratolytic at higher concentrations. Marks et al⁵ attributed the keratolytic effect to dissolution of the intercellular cement between the corneocytes. Salicylic acid has antimycotic and antimicrobial effects. The anti-inflammatory properties of salicylic acid were documented by suppression of UV-induced erythema in guinea pigs.⁶ Salicylic acid promotes the penetration of other drugs. Local adverse effects include irritation that disappears after cessation of application.

Coconut oil

Coconut oil is an emollient that has the property of penetrating the hair shaft. Coconut oil prevents swelling of hair. Since the process of swelling and

shrinking of hair is an important cause of hair damage by hygral fatigue, coconut oil may protect hair from damage as well.⁷

Yellow soft paraffin

Yellow soft paraffin is a yellow unctuous (oily or greasy) mass obtained from crude oil. It consists of hydrocarbons and may be interchanged with white soft paraffin. Whether the yellow or white form is preferable for dermatological usage is controversial. Yellow soft paraffin is presumably more irritating than white soft paraffin. Decolorizing serves to eradicate any possible irritant substances, and is cosmetically superior.

Emulsifying wax

This is a mixture of one part of sodium lauryl sulfate and nine parts of cetostearyl alcohol. It is an important emulsifying agent.

COCONUT OIL COMPOUND OINTMENT IN CONTEMPORARY PRACTICE

This formulation is an invaluable asset in the treatment of psoriasis, severe seborrheic dermatitis and atopic dermatitis involving the scalp. The patient has to apply the ointment the scalp at night and wear a plastic shower cap. The scalp is then shampooed in the morning with a coal tar-containing shampoo that is kept on for 5 minutes before rinsing. The frequency of application is alternate nights or for thicker lesions

every night for the first couple of weeks. Remission can be maintained with as little as once or twice a week application.

Initially, it is preferable to supplement this regime with a topical steroid lotion. For children and in more inflammatory lesions, one may reduce the quantity of coal tar to 4 ml and increase the coconut oil amount to 68 ml.

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(Contributions are invited for this section from all dermatologists, including senior ones, who still write such prescriptions)