Evaluations on New Drugs


Benzoyl Peroxide Acne Lotions: An Independent Report

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Summary

Benzoyl peroxide is an oxidising agent with antibacterial and moderate keratolytic properties. Used as a lotion, alone, and in combination with precipitated sulphur, it is employed in the topical management of acne vulgaris. There is a need for explicit administration instructions to be given to the patient when these lotions are used.

Controlled and open studies have shown benzoyl peroxide and benzoyl peroxide-sulphur preparations to be effective in many patients with acne vulgaris and more effective than formulations containing sulphur alone in the same base. Whether benzoyl peroxide is used alone or in combination with sulphur should be determined for each individual.

Excessive erythema and drying of the skin has occasionally necessitated withdrawal of treatment, but such reactions are usually easily controlled by reducing the frequency of application.

Contact allergic sensitivity has been encountered in a few isolated instances.

Key Words

Acne vulgaris
Benzoyl peroxide
Keratolytic agents

1 'Benoxyl' (Stiefel); 'Oxy-5 Acne' (USV); 'Persadox' (Texas).
2 See subject index in each issue for further indexing terms.
Benzoyl Peroxide Acne Lotions

1. Rationale for Use

Possible methods of treating acne vulgaris include unblocking the piloseba-
ceous duct, strengthening the wall of the duct, decreasing the amount of sebum
secreted, making it less viscid, or changing its composition to make it less irritant
(Carruthers, 1974).

Benzoyl peroxide is an oxidising agent which possesses antibacterial and
mild keratolytic properties. Combining sulphur with benzoyl peroxide produces
greater keratolysis than usual concentrations of either substance used alone.
Such combined preparations, particularly lotions, reduce facial oiliness and cause
superficial peeling, and it is assumed that production of new comedones and
papules can be decreased by continuous controlled exfoliation.

2. Therapeutic Trials

Double-blind and open trials of ointments, creams and lotions containing
various combinations of benzoyl peroxide and sulphur have shown them to be
generally preferred to either ingredient alone in an identical base (Danto et al.,
1966; Kligman et al., 1969; Kosenberg, 1965; Vasarinsh, 1969; Wilkinson et al.,
1966). However, in one of two studies involving small numbers of patients with
acne vulgaris, there was no clear difference in the numbers of patients benefiting
from a lotion containing either 5 % benzoyl peroxide alone or 5 % benzoyl
peroxide plus 2 % sulphur (Kirton and Wilkinson, 1970).

In a double-blind trial in which 54 patients were available for assessment,
Vasarinsch (1969) found a lotion containing 5 % benzoyl peroxide and 2 % pre-
cipitated sulphur to be superior to 5 % benzoyl peroxide lotion, 2 % sulphur
lotion or placebo. Patients were assessed after an average of 6.2 weeks of treat-
ment. Evaluation of therapy was based on the patient’s impression, physician’s
evaluation, the lesion count and the examination of serial photographs. The
degree of change was rated numerically. No systemic or topical antibiotics or
hormones were used and no acne surgery was performed. Results are summarised
in table I. In another double-blind study, involving small numbers of patients,
Kirton and Wilkinson (1970) studied the efficacy of sulphur 2 % lotion with and
without 5 % benzoyl peroxide, of benzoyl peroxide 5 % lotion with and without
2 % sulphur, and compared benzoyl 5 %-sulphur 2 % lotion with ‘standard treat-
ments’. An objective and subjective assessment by the same observer after 4
weeks of treatment indicated a preference for the combined benzoyl peroxide-
sulphur lotion over either sulphur lotion or simple ‘standard treatments’ such as
5 % salicylic acid in 70 % ethyl alcohol, sulphur and salicylic acid cream or
proprietary lotions being used by the patient at the time of referral.