PUVA: A Caution

A new investigational treatment for severe psoriasis has been introduced, but it is being widely used in an uncontrolled fashion. This treatment is a form of photochemotherapy known as PUVA (psoralen with ultraviolet light in the A range) and consists of total body irradiation with high-intensity, long-wave-length, ultraviolet light of a narrow band (320 to 400 nm) after oral administration of 8-methoxypsoralen (methoxsalen).

The mechanism by which PUVA produces therapeutic results is thought to be the formation of psoralen-DNA photo adducts that decrease cellular replication in the epidermis. PUVA is known to cause mutations to mammalian cells in vitro and to produce chromosomal damage in vivo; these changes in DNA have been linked experimentally to teratogenesis and carcinogenesis. Changes in collagen structure may have long-term, deleterious effects such as premature aging and cataracts.

Severe, widespread psoriasis is less common in the pediatric age groups than in adults. Current topical therapy involving ointments, oil baths, and short-wave-length (B range) ultraviolet light is generally helpful in controlling psoriasis in most pediatric patients. Thus, few children need to be candidates for PUVA. Although PUVA has not been suggested for trial in pediatric patients as yet, additional clinical experience in adults and in vitro laboratory studies may establish that PUVA has adequate safety for use in children. At this time (until PUVA has been proven safe for use in children), the Committee on Drugs recommends that dermatologists not enroll children in PUVA studies and that those who provide care for children caution families against allowing their children to enter into any PUVA study or treatment programs. If the clinical severity of the disorder demands an aggressive modality (such as PUVA), families should be made fully aware of the lack of evidence of its long-term safety.

Under no circumstances should children be treated with PUVA, except under established IND (investigational new drug) protocols.

REFERENCES
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