

Neutrogena Corporation's Comments on Scientific Issues Raised by the Occupational Knowledge International Petition, FDA Docket No. OOP-1210/CP I

Excerpts relevant to human experience with refined coal tar-based sealants

B. Epidemiology

In 1982 an expert panel reviewed coal tar as a treatment for seborrheic dermatitis, psoriasis and atopy (eczema) for the U.S. Food and Drug Administration. The Advanced Notice of Proposed Rule Making (ANPR) included a review of the then available epidemiological data (2-4). Only one of these references, reference 3, was peer reviewed, the others being information garnered from a symposium (2) and a bulletin (4).

Since the publication of the 1982 ANPR, five additional peer reviewed epidemiology studies have been reported in the medical literature (5-9). These have been reviewed and summarized (10).

Taken as a group of six epidemiological studies, 1,924 patients treated with 100% crude coal tar for psoriasis or atopy applied to large areas of their bodies and left on for periods up to 24 hours were evaluated against non-treated controls.

These studies (2 from Denmark, 2 from the United States, 1 from Sweden and 1 from the United Kingdom) included follow up periods on the 1,924 patients from between 25 and 60 years post treatment.

In addition, over 15,000 psoriasis patients' medical histories were examined for any increased incidence of cancer (6). These medical histories showed no increased risk of skin cancer due to the use of coal tar.

The weight of epidemiological evidence clearly demonstrates that there is no increased risk from cancer when crude coal tar is applied to patients suffering from the pathological skin conditions of psoriasis or atopy.

F. Literature Cited

1. U.S. Food and Drug Administration. Dandruff, Seborrheic Dermatitis, and Psoriasis Drug Products for Over-the-Counter Human Use Final Monograph, Federal Register x:63544, Dec. 4, 1991.
2. A. Greither, C. Glabertz and H. Ippen. Teerbehandlung and Krebs. Zeitschrift fur Hautgeschlechts-Krankheiten 42(15):631-635 (1967).
3. W.Z. Maughan, S.A. Muller, H.O. Perry, M.R. Pittlekow, and P.C. O'Brien. Incidence of cancers in patients with atopic dermatitis treated with coal tar. J. Am. Acad. DermatoE. 3:612-165 (1989).
4. E.M. Farber (Ed.). InternatIonaE Psoriasis BuEZetin 4:1-6. Stanford University, Stanford, CA (1977).

5. K. Kaaber. Occurrence of malignant neoplasms in patients with atopic dermatitis. *Acta Dermatovener.* (Stockh.) 53445-447 (1976).
6. M.R. Pittlekow, H.O. Perry, S.A. Muller, W.Z. Maughan, and P.C. O'Brien. Skin cancer in patients with psoriasis treated with coal tar. *Arch. Dermatol.* u:465-468 (1981).
7. Lark and G. Swanbeck. Is WB treatment of psoriasis safe? A study of extensively WB treated psoriasis patients compared with a matched control group. *Acta Dermatovener.* (Stockh.) 62:507-512 (1982).
8. SK. Jones, R.M. Mackie, D.J. Hole, and C.R. Gillis. Further evidence of the safety of tar in the management of psoriasis. *Br. J. Dermatol.* m:97-101 (1985).
9. G.B.E. Jemeck and Osterlind. Cancer in patients treated with coal tar: a long term follow up study. *J. Eur. Acad. Dermatol. Venerol.* 2: 153-156 (1994).
10. E.M. Jackson. A Review of the 'Epidemiological Data on the Use of Crude Coal Tar as a Medicament for Psoriasis, atopy, and Seborrheic Dermatitis. *JournaE of Toxicology, Cutaneous and Ocular Toxicology* 18(2):155-159 (1999).
11. International Agency for Research on Cancer, World Health Organization. IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Polynuclear Aromatic Compounds, Part 4, Bitumens, Coal-tars and Derived Products, shale-oils and Soots. Vol. 35. International Agency for Research on Cancer, 271 pages. Lyon, France, Jan. 1985.
12. J.R. King and N.A. Monteiro-Riviere. Effects of organic solvent vehicles on the viability and morphology of isolated perfused porcine skin. *Toxicology* 69(1): 1 1-26 (1991).
13. R.W. Pickering. A Toxicological Review of Polycyclic Aromatic Hydrocarbons. *Journal of Toxicology, Cutaneous and Ocular Toxicology* 1.32): 101-135 (1999).
14. C. Hogue. Identifying Carcinogens. *Chemical & Engineering News* 78(21):8 (2000).