

ABSTRACTS

Studies on the Tensile Properties of Human Scalp Hair. A. B. Gupta, K. G. Ghosh and B. Haldar (Physcial and Earth Sciences Division, Indian Statistical Inst. Calcutta) *Indian J Dermatol*, 1978; 23: No. 4.

Results of studies conducted on the tensile properties of human scalp hair (normal) from the occipital region with 500 strands of 50 Bengali-speaking individuals of both sexes and of age between 0-49 years are reported. The tensile properties measured are (i) the tensile breaking load (TBL), (ii) the ultimate tensile strength (UTS) and (iii) the ultimate percentage elongation (UPE). The TBL-Values vary from 20-140g with an adult average of 76.5g, the females showing slightly higher values, which, as revealed by the t-test, is not significant. The UTS-values range from 7.5 to 31.03 kg/mm with an adult average of 16.08. There is no significant sexwise difference in UTS. The UPE-values vary from 13.63 to 57.37 per cent with an adult average of 38.25. The data show that the female hairs have higher percentage elongation. All the parameters appear to vary with age. The tensile breaking load is greatest (82.76g.) at 20-29 age group, the ultimate strength (16.50 Kg/mm) at 30-49 and the ultimate percentage elongation (41.33) at 10-19 age group.

Basal Cell Epithelioma in a Junctional Naevus—A Case Report with Ulceration and Comedinus Changes. V. R Mehta (Dept. Dermatol Venercol, L. T. M. G. Col and L. T. M. G. Hosp, Bombay) *Indian J Med Sc.* 1980, 34: 8-10.

In a previous paper the author had described, as a logical sequence of events, the unusual development of ulcerative basal cell epithelioma (BCE) in a compound nevus. This report (probably the first in literature) describes a 40 year old unmarried female developing a superficial BCE, in one of two identical junctional nevi present from birth on her left breast. The affected pigmented macule ulcerated at the age of 14 years and gradually spread as comedinus papules to form an oval plaque.

Histologic examination of the uninvolved macule showed the structure of a junctional nevus. The ulcerated papule revealed presence of nevus cell nests in an atrophic epidermis, transepidermal exfoliation of nevus cells, origin of the BCE from the epidermis, and presence of continent nevic melanocytes in the retraction spaces between the epidermis and BCE. The comedinus papules consisted of a superficial BCE with delling on the surface, and no nevic elements. Formalin-fixed material was used for the study with H & E and Fontana-Masson stains.

Had this patient been examined at the onset of ulceration a clinical diagnosis of malignant melanoma would have been inevitable. It is cautiously suggested that the presence of nevus cells in the epidermis renders its keratinocytic system unstable, hence neoplasia prone.