
Background: Cutaneous horn is a macroscopical designation to describe so many benign and malignant epidermal tumors which share unique morphological characteristics in common; hyperkeratotic colonial excrescence in which the height of the tumor must exceed at least one-half of its greatest diameter. There are some noticeable reports showing that cutaneous horn lesions with a wide tumor base or a low height-to-base ratio have a tendency to be malignant or premalignant in nature.

Objectives: To examine the possibility of discrimination between benign cutaneous horn cases and malignant or premalignant ones by using their height-to-base ratio, such cases were compared from the standpoints of the morphological data as well as their ages.

Methods: Surgically excised 14 specimens out of 13 patients of cutaneous horn were entered, and were divided into two groups; benign tumor group and malignant or premalignant ones by using their height-to-base ratio. Some noticeable reports showing that cutaneous horn lesions with a wide tumor base or a low height-to-base ratio have a tendency to be malignant or premalignant in nature [5,6]. On the other hand, recently a case of squamous cell carcinoma manifested as a cutaneous horn with the larger height than its basal diameter of 9 mm. (Figure 1a). The histopathological findings of surgical specimen (Figure 1b) revealed prominent horny hyperkeratosis associated with parakeratosis, and dyskeratotic atypical keratinocytes were found in the spinous layer as well as in the interridge area of the epidermis. Additional findings include band-like dermal lymphocytic infiltration just beneath the lesional epidermis based on solar elastosis. These were histologically pathognomonic characteristics of actinic keratosis. Such controversial evidences on the morphology of epidermal tumors prompt us to examine the possibility of discrimination between benign cutaneous horn cases and malignant or premalignant ones by using their height-to-base ratio.

RESULTS
In comparison between malignant group and benign group:
#1. Patients of malignant group were older than those in benign group (p<0.05).
DISCUSSION

So many kinds of epidermal tumors can present cutaneous horn anywhere on the sun-exposed area, showing the peculiar appearance at the gross level. Therefore, it often needs to be discrimination between benign and malignant in origin. Among such trials, it is noteworthy that some authors proposed the hypothesis about the correlation between cutaneous horn lesions with a wide tumor base or a low height-to-base ratio and the tendency to be malignant or premalignant in nature [5,6]. On the other hand, however, controversy still remains [7]. Our present study showed no significant difference of the greatest basal diameters between benign group and malignant group. Another negative study includes the no significant difference of R between the two groups. The discrepancy of the data between those of Yu et al [5] and Pyne et al. [6] versus ours may be due to the large scales of entry patients in the formers in contrast to the small one of ours.

However, it always needs to be noted the exceptional cases out of such rules, and cutaneous horns at the gross level should prompt consideration of biopsy for the definite diagnosis. Our case #10 also seems to support such speculation.

REFERENCES