Case 5

A 49 years-old Thai woman

Chief complaint:

Multiple hyperkeratotic papules on palms and soles for 20 years

Present illness:

The patient presented with multiple, hard papules on her palms and soles, first noticed 20 years ago. The lesions gradually increased in numbers and coalesce into firm plaques at palms and soles. She also had numerous firm round plaques on her chest and back. The lesions were very itching and disturbing.

Past history:

She had history of asthma and was treated with traditional Thai herbal medicine 20 years ago.

Family history:

Similar skin lesions were not reported in other family members.

Physical examination:

Multiple punctate, non-tender, hard yellowish, symmetric keratotic papules coalesce into firm verrucous plaques at dorsum of hands and feet.

Multiple round hyperkeratotic plaques, with pearly rolled-edge on erythematous base at neck, chest, back and extremities.

Multiple small area of hypopigmented macules within hyperpigmented patches on the back.

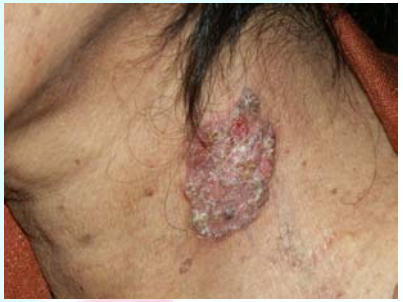

Fig 05.1

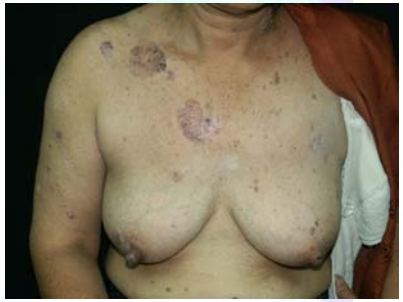

Fig 05.2

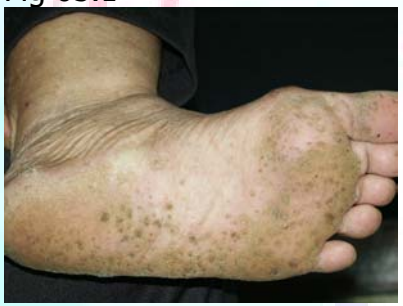

Fig 05.3

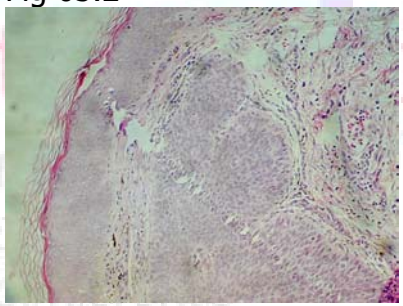

Fig 05.4

Histology: Biopsy from neck

There are budding of atypical basaloid cells in the upper dermis.

Impression: Superficial basal cell carcinoma

Treatment:

CO_2 laser with curettage

Acitretin 25 mg per day

After administration of Acitretin for 1 month, the hyperkeratotic plaques of palms and soles significantly reduced in numbers, roughness and thickness. There was no abnormality of the liver function test and the lipid profiles during the follow up period.

Diagnosis: Arsenical keratoses with multiple BCC

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Discussion:

Arsenical keratoses (ArKs) are precancerous lesions associated with chronic arsenicism, a chronic sub-clinical/ clinical toxicity due to high level of arsenic in the body. Chronic arsenicism is associated with variety of cutaneous (70%) and internal malignancies (6.3%).

Arsenic can be exposed by various means, including

(i) medicinal preparation as in Fowler's solution, Donovan's solution, Asiatic pills, arsenic in opium, and Chinese herbal medicine;
(ii) environmental contamination as in drinking water, well water and soil;
(iii) occupational exposure as in mining, smelting, agriculture, computer microchip processing, forestry, electroplating, semiconductor industry, and glassmaking.

ArKs on palms and soles are more likely seen in medicinal exposure than in occupational exposure. Arsenical related cancers are more likely to have palmoplantar ArKs. The mean latency periods for ArKs varies from 9 to 30 yrs.

Cutaneous neoplasms related to chronic arsenicism are Bowen's disease, basal cell carcinoma and squamous cell carcinoma. With arsenic rather than ultraviolet ray, as the carcinogen, these neoplasms distribute in a more widespread, non photodamaged area. Chance of progression to invasive SCC in ArKs is relatively rare. But once SCC in ArKs occurs, it is more locally aggressive and has greater chance of metastasis when compared to SCC in actinic keratosis. At least 1/3 invasive SCC occurred in Bowen's disease will demonstrate evidence of metastasis.

Advance neglected cases may present with cancer of skin and internal malignancies in lung, urinary tract, hepatic, hepatic angiosarcoma, leukemia and lymphoma.

Treatment are not standard and mandatory unless for relieving discomfort. Local treatment can be done by means of surgical excision, cryosurgery, electrodesiccation and curettage, CO_2 laser, topical 5-FU and photodynamic therapy with 5-ALA. Reports have shown that oral retinoids such as acitretin and etretinate can be used to clear Bowen's disease and SCC successfully. Regular total body skin examination and general physical examination every 6 months are recommended.

References

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