

CASE 15

A 54- year- old Thai woman from Bangkok

Chief complaint:

Six months of asymptomatic facial papules.

Present illness:

During the past 6 months, she had had asymptomatic skin color papules gradually developing on her both cheeks.

Past history:

Healthy

Physical examination :

Multiple monomorphic firm consistency skin color papules on both cheeks.

Other systems were entirely normal.



Fig. 15.1

Investigation:

Serum Ca 2.46 (2.20-2.62) normal

Histopathology: (S05-12290)

- Island of bone formation in the mid dermis.
- Osteocytes and fat cells in the chamber

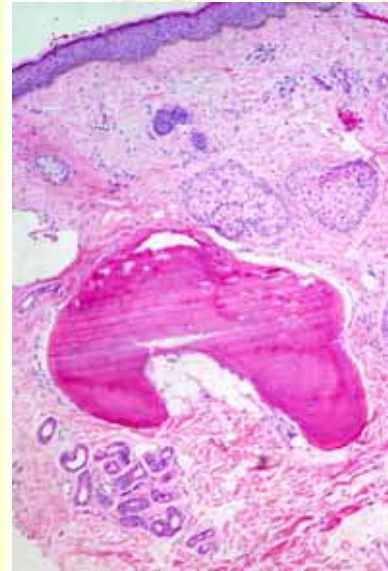


Fig. 15.2

Diagnosis: Primary multiple miliary osteoma cutis of the face

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Discussion:

Osteoma cutis (OC) is a benign disease first described by Wilckens in 1858. It represents extra-skeletal bone formation that arises within the skin. It is commonly divided into primary and secondary based on the absence or presence of a preceding cutaneous lesion. Secondary OC is more common than primary OC. The underlying cutaneous disorders are either tumors (pilomatricomas, chondroid syringomas, basal cell carcinomas, pilar cysts, nevi, sebaceous adenomas), inflammatory disorders (scars, stasis dermatitis, dermatomyositis, scleroderma, folliculitis, acne vulgaris) or trauma.

Primary osteoma cutis is less common, characterized by de novo bone formation in the skin without pre-existing cutaneous disorder. Primary osteoma cutis may represent an independent phenomenon or may be part of a syndrome such as Albright's hereditary osteodystrophy, fibrodysplasia ossificans progressiva, progressive osseous heteroplasia, and platelike osteoma cutis.

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Multiple miliary osteoma cutis of the face, first described by Virchow in 1864, was an acquired localized form of cutaneous ossification. Both primary and secondary forms exist. The classic (secondary) MMOC presents in young women in their 20s and 30s with a long history of facial acne vulgaris. Where as primary MMOC, is very rare, presents in older women (50s to 70s) with no history of acne or other inflammatory dermatosis. It is usually asymptomatic and characterized by multiple, firm, skin-colored, small papules or nodules. The pathogenesis is unclear and may involve differentiation of ectopic embryonic nests of mesenchymal cells into osteoblasts (hamartoma) or stimulation of dermal fibroblasts to become osteoblasts (metaplasia).

Osteoma cutis is diagnosis by histopathology. Microscopic findings consist of well formed and calcified bone arranged in spicules of spongy bone or sheets of compact bone in the dermis or extend into the subcutaneous tissue. There are always identifiable osteocytes, and occasionally Haversian system is seen. Howship's lacunes and osteoclasts are seen only rarely. Decalcification of biopsied tissue can be performed for a better visualization of bone tissue.

Treatment is difficult and usually involves individual removal of the bony nodules. There are several reports of successful treatment with surgical techniques using scalpel or punch biopsy instrument and ablation with carbon dioxide or Erbium:YAG lasers. Topical tretinoid has been reported to be effective through gradual transepidermal elimination of more superficial lesions.

Reference

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4. Altman JF.. Treatment of primary military osteoma cutis with incision, curettage, and primary closure. *J Am Acad Dermatol* 2001; 44:96-9.
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