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A dodging case of Colloid Millium rescued by Pathologist

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Abstract
Colloid millium (CM) is a rare cutaneous condition of unexplored etiology clinically characterized by translucent to yellowish waxy papules on photo-exposed regions which include the face, neck, and dorsal aspects of the hands and back usually in fair skinned individuals. Due to the rarity of cases and paucity of data the diagnosis, etiopathogenesis and treatment protocol remains uncertain, hence raising the need to highlight this rare case.

Keywords: Colloid millium

Introduction

Colloid millium (CM) is a rare cutaneous condition of unexplored etiology clinically characterized by translucent to yellowish waxy papules on photo-exposed regions which include the face, neck, and dorsal aspects of the hands and back usually in fair skinned individuals. Due to the rarity of cases and paucity of data the diagnosis, etiopathogenesis and treatment protocol remains uncertain, hence raising the need to highlight this rare case.

Case Report :

We report a case of 56 years old rural female, housewife by profession, presenting to Dermatology OPD with complaints of non progressive, numerous pigmented skin lesions over face particularly bilateral nasolabial folds and malar eminences since past 6-7 years. She consulted various local physicians for these lesions and has history of application of multiple sunscreens, emollients and steroid creams with which she apparently had no relief. She denied any other chronic illness, history of local trauma, drug abuse or similar lesions in parents and siblings. Personal and obstetric history was insignificant.

On General examination, she was healthy with average look. Systemic examination was within normal limits. Her basic investigations including complete hemogram, liver and kidney function tests, coagulation profile along with random blood sugar were found to be normal.Local examination revealed multiple non itchy, papulo-nodular lesions ranging from 2-4 mm over bilateral nasolabial folds and malar eminences.[Figure 1] Erythema and telangiectasia was present.

A detailed clinical history and examination by dermatologist led to working differential diagnosis of Lichenoid pseudovesicular popular eruption, Actinic lichen planus, Sarcoidosis, Discoid lupus erythematosus and Lupus miliaris disseminated faciei.Patient underwent skin punch biopsy from right cheek region and the specimen was sent for histopathological examination

We received.a skin punch biopsy measuring 0.5x0.4x0.2 cm. Microscopic examination on routine Hemotoxylin- Eosin (HE) stain showed thinned out epidermis with loss of rete ridges. Focal basal necrosis is noted. Superficial papillary dermis shows nodular deposits of homogenous eosinophilic amorphous material with intervening clefts and fissures. Macrophages containing granular debris and brown

pigment noted. Small collection of histiocytes and degenerated collagen fibres are seen surrounding these nodules. [Figure 2] Reticular dermis shows moderate chronic peri-adnexal lymphocytic infiltrate. Subcutis is unremarkable.With the above microscopic findings along with clinical examination and history a final diagnosis of Colloid millium was rendered.

Discussion :

Colloid milium was first described by Wagner in 1866 as "Das Colloid-Milium der Haut" and has been historically known as colloid pseudomillium, colloid infiltration, milliary colloidoma, hyaloma, and elastosis colloidalis conglomerate [1, 2].

Colloid milium is a rare skin deposition disorder associated with degenerative changes. The exact etiopathogenesis is unrecognized although handful of authors suggest that precipitating factors may be chronic ultra violet radiation exposure, application of bleaching creams containing hydroquinone, , contact with petroleum products, phenolic components in the fuels and genetic predisposition. [3]. Exposure to sunlight is thought to be responsible for the structural damage caused to the elastin and rupture of collagen resulting in accumulation of serum proteins or fibroblasts products.

CM has been categorized into four different types viz. 1) Juvenile type arising from degenerated keratinocytes 2) Adult type originating from degenerated elastic fibers, 3) Pigmented type as a result of toxic effects of petroleum products and hydroquinone and 4) Nodular colloid occurring in elderly age group.

Juvenile colloid milium is exceedingly rare and tends to develop between 10-20 years of age, but it has also been claimed in a child aged 4 years [4]. Familial cases with an autosomal recessive inheritance of juvenile colloid milium have been reported [5].

The most common form of the disease is the adult form, which has a male preponderance with male and female ratio of 4:1. [6] Our case is a female patient having wheatish complexion with pigmented papular lesions over bilateral malar eminences.

CM usually presents as firm, tan or yellow papules that vary in size from 0.5 to 5mm and contain a yellow, gelationous material which gets released on puncturing. A probable cause for altered morphology of lesions in present scenario may be long term application of steroids and emollients prescribed by various physicians which made the diagnosis clinically more challenging.

CM can morphologically mimic variable entities as in our case including lichen amyloidosus, milium, syringomas, steatocystoma multiplex, lipoid proteinosis, retention cysts, sarcoidosis, molluscum contagiosum and papular mucinosis.

Amyloidosis can be easily ruled out by using congo red, a special histochemical stain specifically used for demonstration of amyloid deposits.

The gold standard for diagnosing CM remains Histopathological examination specially in cases where clinical appearance remains deceptive. On light microscopy, the presence of characteristic eosinophilc homogenous colloid like nodular deposits underneath the epidermis along with intervening clefts and fissures remains the hallmark of this disease condition. Solar elastosis is present at the periphery of colloid deposits.[4] Overlying epidermis is usually atrophic with loss of retepegs. Periodic acid sciff (PAS) stain can further support the diagnosis.

Effective treatment options include modalities like dermabrasions, lasers, diathermy and cryotherapy.

Conclusion :

Although a rare entity, CM can significantly affect quality of life specially in young females. Due to its low prevalence and variable presentation, it is frequently misdiagnosed or underlooked. Hence there is a need to create awareness among clinicians and pathologists to report each and every diagnosed case and contribute to the existing literature

References

1. Christie T, Joseph M, George J, Hruza G.Adult-Onset Facial Colloid Milium Successfully Treated with the Long-Pulsed Er:YAG Laser. Dermatol Surg 2002 Mar; 28(3): 215-219.
2. Innocenzi D, Barduagni F, Cerio R,Wolter M. UV-induced colloid milium.Clin Exp Dermatol 1993 Jul; 18(4):347-50.
3. Findlay GH, Morrison JGL, Simson IWet al. Exogenous ochronosis and pigmented colloid milium from hydroquinone bleaching creams. Br J Dermatol 1975; 93: 613–22.

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4. Hashimoto K, Nakayama H, Chimenti S, et al. Juvenile colloid milium: Immuno-histochemical and ultrastructural studies. J Cutan Pathol 1989; 16: 164–74.
5. Handfield-Jones SE, Atherton DJ, Black MM, Hashimoto K, McKee PH. Juvenile colloid milium: Clinical, histological and ultrastructural features. J Cutan Pathol 1992; 19: 434–8.
6. Muscardin LM, Bellocci M. Papuloverrucous colloid milium; an occupational variant. Br J Dermatol. 2000;143:884-7

Figure 1. Papulo-nodular lesions ranging from 2-4 mm over bilateral nasolabial folds and malar eminences.

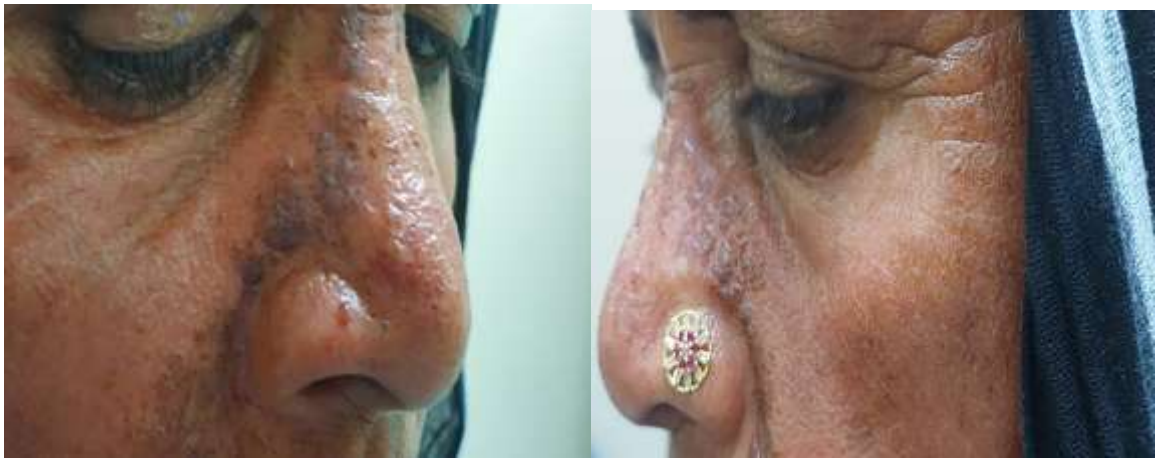

Figure 2 (A) Scanner view, 4x, H&E (B) High power view,40x, H&E Superficial papillary dermis shows nodular deposits of homogenous eosinophilic amorphous material with intervening clefts and fissures.

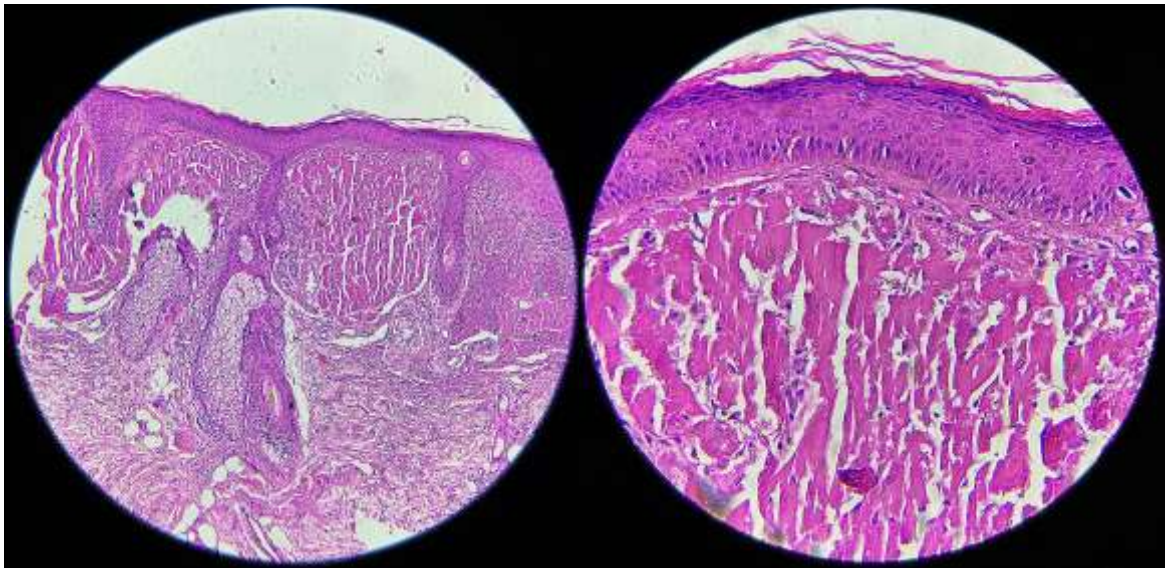

Figure 2 (C) Small collection of histiocytes and degenerated collagen fibres are seen surrounding these nodules. Reticular dermis shows moderate chronic peri-adnexal lymphocytic infiltrate.

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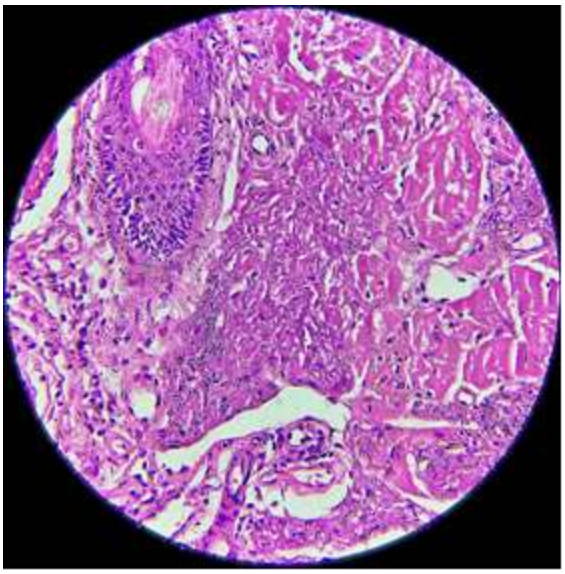

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