ORIGINAL RESEARCH PAPER

Volume-7 | Issue-8 | August-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

NEVUS COMEDONICUS : A CASE REPORT

Dermatology

Dr. Vipul Paul Thomas — Junior Resident, Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital, Bharath University, Chennai 600044, Tamil Nadu, India.

Dr. Archana. M — Junior Resident, Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital, Bharath University, Chennai 600044, Tamil Nadu, India.

Dr. Jayakar Thomas* — HOD & Professor, Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital, Bharath University, Chennai 600044, Tamil Nadu, India. *Corresponding Author

ABSTRACT

Nevus Comedonicus is a rare hamartoma of the pilosebaceus unit resulting in numerous dilated keratin filled comedones. This report describes an 18 year old female with multiple pigmented comedones in a linear pattern over the inner aspect of the left thigh.

KEYWORDS

Nevus, Comedones, Keratotic plug

INTRODUCTION:

Nevus Comedonicus also known as Comedo Nevus, is an uncommon developmental defect of the pilosebaceus apparatus characterized by inability to produce properly formed hair matrix cells or sebaceous glands1. First described in 1895 by Kofmann.

Clinically Nevus Comedonicus presents with dilated pores with keratinous plugs present in a linear fashion. Nevus Comedonicus is present mostly at birth but sometimes can occur later in life. Those occurring in later in life commonly presents by the age of 101.

CASE REPORT:

An 18 year old female came to the Dermatology OPD with complaints of dark coloured skin lesions on the inner aspect of the left thigh for the past 10 years. Patient was apparently normal 10 years back when she started developing multiple dark coloured lesions over the inner aspect of left thigh. The patient had a dark coloured mole at the same site from birth. This mole gradually progressed in size to form multiple comedogenic papules. Patient also complained of itching and discharge of dark dirt-like material from the lesion. Patient complains of occasional dull aching pain over the lesion. No history of similar lesions elsewhere. No history of trauma. No history of weakness of limbs. No other neurological deficits. No skeletal abnormalities. No visual disturbances. No history of similar lesions in the family.

Patient had taken Isotretinoin 20mg once daily for a year and discontinued treatment due to the development of dryness and burning sensation over the face and mouth. She then underwent Electrocautery for the same but showed no improvement.

On examination, multiple pigmented comedones arranged in a linear pattern present over the inner aspect of left thigh surrounded by an area of hypopigmentation.

Skin Biopsy was done and histopathological examination showed hyperkeratosis, focal acanthosis, elongation of rete ridges with follicular plugging overlying fibro-collagenous dermis enclosing hair follicles and adnexal structures. The granular layer is seen to be thickened with a large number of keratohyaline granules suggestive of epidermolytic hypergranulosis.

DISCUSSION:

Nevus Comedonicus is a rare hamartoma of the pilosebaceus unit due to growth dysregulation affecting the mesodermal portion of the pilosebaceus unit2. Signalling pathways and somatic mutations of tyrosine kinase receptors have also been postulated in the etiopathogenesis3. The epithelial invaginations are incapable of forming mature terminal hairs and sebaceous glands. This leads to the accumulation of soft cornified ostial product resulting in a comedo-like plug.

Nevus Comedonicus presents with a single lesion that is well circumscribed or as a group of lesions arranged in a linear fashion consisting of dilated follicular ostia with dark and pigmented keratinized material. Occasionally multiple lesions may also be present. Most common site is the face followed by trunk, neck and upper extremities. The size of the lesion varies from a few centimetres to extensive lesions involving almost half of the body. Hormonal influences of puberty can lead to worsening of the lesion. These lesions can be complicated by secondary infections, abscess formation, sinuses and cyst formation with or without fibrosis.

Differential diagnosis for Nevus Comedonicus include basal cell nevus with comedones, linear basal cell nevus, acne, acne nevus, hair follicle nevus(trichofolliculoma), basaloid follicular hamartoma, nevus sebaceous. An acneiform pattern of scarring maybe seen in Nevus Comedonicus resembling scarring pattern following herpes zoster and atrophoderma vermiculatum4.

Treatment of Nevus Comedonicus includes both medical and surgical management. Medical management includes oral isotretinoin and antibiotics. Topical keratolytics such as salicylic acid, tretinoin and ammonium lactate5 maybe helpful but not curative. Localised lesions can be surgically excised but larger lesions are difficult to excise. Manual extraction has been tried. Dermabrasion and CO2 laser ablation are also employed in the management of Nevus Comedonicus. Tissue expansion has been used in the treatment of extensive Nevus Comedonicus6.

CONCLUSION:

Nevus Comedonicus is a development defect of pilosebaceus apparatus present from birth but can also present later in life. Many therapeutic approaches are being employed in the management of Nevus Comedonicus which suggest that the treatment of the above can be a challenge.

LEGENDS TO FIGURES :

Figure 1 : Clinical photograph showing multiple comedones arranged in a linear fashion on the inner aspect of the left thigh.

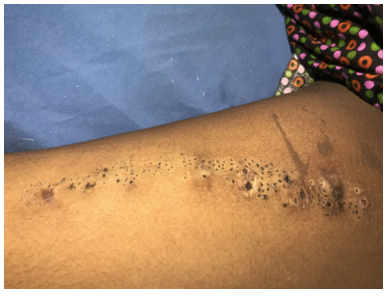


Figure 2 : Low power microscopy showing keratotic plugs in the epidermis with elongation of rete ridges.

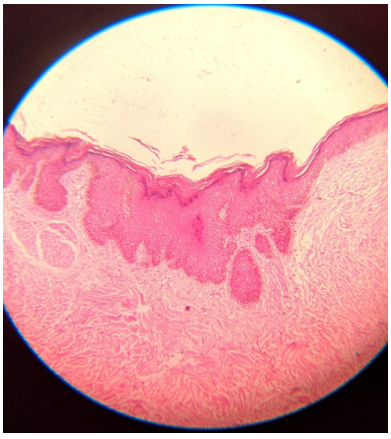
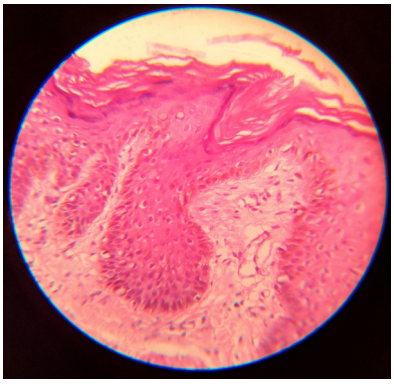


Figure 3 : High power showing granular layer that is thickened with large keratohyaline granules suggestive of epidermolytic hypergranulosis.



ACKNOWLEGMENT: None

CONFLICT OF INTEREST: The authors declare that they have no conflict of interest.

REFERENCES:

1. Patrizi A, Neri I, Fiorentini C, Marzaduri S. Nevus comedonicus syndrome: a new pediatric case. Pediatric dermatology. 1998 Jul 8;15(4):304-6.
2. Munro CS, Wilkie AO. Epidermal mosaicism producing localised acne: somatic mutation in FGFR2. The Lancet. 1998 Aug 29;352(9129):704-5.
3. Tchernev G, Ananiev J, Semkova K, Dourmishev LA, Schönlebe J, Wollina U. Nevus comedonicus: an updated review. Dermatology and therapy. 2013 Jun 1;3(1):33-40.
4. Beck MH, Dave VK. Extensive nevus comedonicus. Archives of dermatology. 1980 Sep 1;116(9):1048-50.
5. Inoue Y, Miyamoto Y, Ono T. Two cases of nevus comedonicus: successful treatment of keratin plugs with a pore strip. Journal of the American Academy of Dermatology. 2000 Nov 1;43(5):927-9.
6. Marcus J, Esterly NB, Bauer BS. Tissue expansion in a patient with extensive nevus comedonicus. Annals of plastic surgery. 1992 Oct;29(4):362-6.