International Journal of Research in Dermatology
Narayanan N et al. Int J Res Dermatol. 2025 May;11(3):277-279
http://www.ijord.com

DOI: https://dx.doi.org/10.18203/issn.2455-4529.IntJResDermatol20251055

Case Report

Posterior extension of beaded juxta-clavicular lines

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Received: 13 March 2025
Revised: 16 April 2025
Accepted: 18 April 2025

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ABSTRACT

Juxta-clavicular beaded lines are a dermatological condition that typically appears during puberty. It is also called as cutis punctata lineraris colli. It presents as an asymptomatic, linear papular eruption, predominantly affecting the neck and supraclavicular regions. This condition is more commonly seen in individuals of African descent compared to Caucasians, with a notable female predominance. While the exact cause remains unclear, it is thought to be associated with hormonal changes during puberty. Here we presented a case report on a 28-year-old male with juxta clavicular beaded lines over the neck, extending to the back.

Keywords: Juxta clavicular beaded lines, Cutis punctata lineraris colli, Puberty

INTRODUCTION

Cutis punctata linearis colli, another name for juxta-clavicular beaded lines (JCBL), is a rare and sometimes disregarded dermatological disorder marked by asymptomatic, linear papular eruptions. These microscopic papules usually form closely spaced parallel rows, giving the neck and supraclavicular areas a characteristic "beaded" look.[1] The disorder has received little attention in the dermatological literature since it was first described by Evan-Paz and Sagher in 1963 and later dubbed "Juxta-clavicular beaded lines" by Butterworth and Johnson in 1974.[2] JCBL often appears at adolescence and is significantly more frequent in females. Compared to Caucasians, people of African heritage are more likely to exhibit it.[3]

Hormonal factors during adolescence are thought to be a major factor, even if the exact cause is yet unknown.[4] Long-term systemic corticosteroid use has also been linked in certain instances. Clinically, JCBL needs to be distinguished from a number of dermatoses that have similar appearances, such as confluent and reticulated papillomatosis of Gougerot and Carteaud, acanthosis nigricans, pseudoxanthoma elasticum, and papular mucinosis.[5] A greater understanding of JCBL is necessary for precise diagnosis and distinction from other dermatological disorders because of its distinct yet subtle presentation and paucity of data.

CASE REPORT

A 28-year-old male presented to the dermatology outpatient clinic with complaints of multiple, bead-like raised lesions along the clavicles and extending to the back. The lesions had been present for several years without associated pain, pruritus, or functional impairment. There was no history of trauma, systemic illness, or similar findings in family members.

On examination, closely set, numerous pinpoint beaded papules with a yellow-brown hue were observed in a linear configuration over the neck, supraclavicular region and extending to the back, the papules were approximately 1 mm in diameter which coursed transversely. Overlying skin appeared normal with no erythema or

hyperpigmentation. General, physical and systemic examinations were unremarkable.

Management

In this case, the patient was started on topical tretinoin 0.05% cream, applied once daily at night. Tretinoin, a topical retinoid, is known for its ability to normalize keratinization, promote epidermal turnover, and improve the appearance of papular and pigmentary dermatoses. While Juxta-clavicular beaded lines are typically asymptomatic and do not require medical intervention, tretinoin may offer modest cosmetic improvement by reducing the prominence of the papules. The patient was advised regarding the potential for irritation, dryness, and photosensitivity, and was instructed to use a broad-spectrum sunscreen during the day to minimize photodamage and irritation. Follow-up was scheduled to assess the response to therapy and evaluate the need for further interventions, such as procedural options in case of suboptimal improvement.

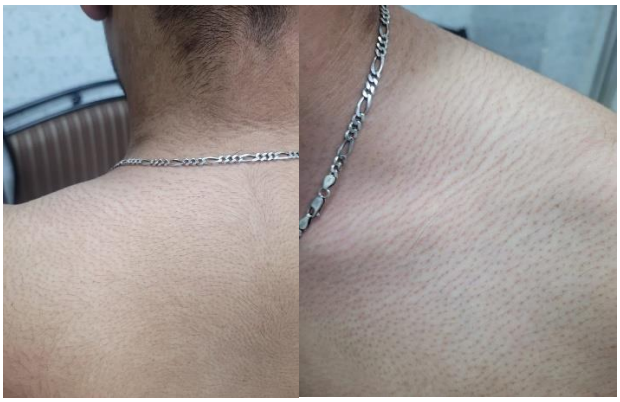

Figure 1: Juxta-clavicular beaded lines.

DISCUSSION

Cutis punctata linearis colli, more commonly referred to as JCBL, is a rare, benign dermatological condition that remains largely underreported and poorly understood in medical literature. It is characterized by asymptomatic, linear papular eruptions that predominantly affect the neck and supraclavicular regions. These lesions consist of minute, closely spaced papules that are arranged in parallel rows, creating a distinctive 'beaded' appearance on the skin. Because of their unique distribution pattern along the clavicular margins, the condition was later renamed 'Juxta-clavicular beaded lines' by Butterworth and Johnson in 1974, following its initial description by Evan-Paz and Sagher in 1963, who referred to it as 'cutis punctata linearis colli' or 'stippled skin'. JCBL is predominantly observed during adolescence, with a significantly higher incidence in females. Epidemiological data, although sparse, suggest a marked predilection for individuals of African descent when compared to Caucasians. The condition's onset during puberty points toward a possible hormonal influence as a central etiological factor. Evan-Paz and Sagher also proposed a potential association with prolonged systemic corticosteroid use, although this has not been conclusively proven. Given the limited number of documented cases, the precise pathogenesis remains speculative.

Clinically, Juxta-clavicular beaded lines present a diagnostic challenge due to their subtle morphology and resemblance to several other dermatological conditions. Differential diagnoses include a range of papular dermatoses, such as papular mucinosis, pseudoxanthoma elasticum, acanthosis nigricans, and confluent and reticulated papillomatosis of Gougerot and Carteaud. In some instances, histological analysis may be required to exclude other entities, particularly those involving sebaceous gland proliferation, such as nevus sebaceous of Jadassohn, senile sebaceous gland hyperplasia, and sebaceous adenoma. Histopathological examination may reveal small sebaceous glands, sometimes associated with a central fine hair piercing through the lesion. The pathogenesis may involve abnormal follicular keratinization and retention hyperkeratosis.

Despite its distinctive clinical appearance, JCBL is generally considered a benign and non-progressive condition. The papules are typically asymptomatic and do not pose any health risks to the affected individual. As such, treatment is usually not necessary unless the patient experiences cosmetic concerns. In such cases, therapeutic interventions including topical retinoid creams, electrodesiccation, and carbon dioxide (CO_2) laser therapy may be employed to reduce the visibility of the lesions. However, it is important to note that these treatments do not prevent recurrence, and the papules may reappear over time. While direct studies on tretinoin specifically for JCBL are scarce, it has been used anecdotally and empirically due to its effectiveness in similar conditions like Keratosis pilaris. Nightly application of tretinoin 0.025-0.05% cream to the affected area. Initial irritation can be managed with alternate-day application or by using moisturizers. Visible improvement may take 6-8 weeks, with continued use required for maintenance. Topical tretinoin remains a rational and evidence-supported choice for JCBL due to its keratolytic and anti-inflammatory properties.

CONCLUSION

Cutis punctata linearis colli, also known as JCBL, is an uncommon and sometimes overlooked dermatological disorder that usually manifests in adolescence and is characterised by a distinctive linear arrangement of papules throughout the neck and clavicular areas. Hormonal effects and, in rare situations, long-term corticosteroid use have been proposed as significant causes, however the exact cause is still unknown. Except for cosmetic purposes, JCBL typically doesn't need treatment due to its benign and asymptomatic nature. In this instance, a cautious yet successful management strategy was used by starting topical tretinoin 0.05% to

enhance the lesions' aesthetic appearance. In order to improve diagnostic precision, distinguish JCBL from related dermatoses, and inform suitable treatment choices when needed, there needs to be a greater understanding and reporting of JCBL.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Narayanan N, Keerthana KS, Thomas J. Posterior extension of beaded juxta-clavicular lines. Int J Res Dermatol 2025;11:277-9.