DOI: https://doi.org/10.4038/sljd.v25i1.391 SLJD Open Access

CASE REPORT

When hypopigmented macules tell a different story: A rare case of clear cell papulosis

Fathima Benazir Mohamed Karideen[1], **Akalanka De Silva**[1,2], **Sriyani Samaraweera**[1]

[1]Dermatology Unit, Lady Ridgeway Hospital for Children, Colombo, Sri Lanka.
[2]Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka.

Correspondence: Fathima Benazir Mohamed Karideen, mkfbenazir@gmail.com

Abstract

Clear cell papulosis is a rare, benign paediatric dermatosis. It typically presents in children as hypopigmented macules and papules and may be mistaken for pityriasis versicolor. A seven-year-old girl presented with asymptomatic hypopigmented macules over the anterior chest and the upper part of the abdomen for two years. Based on the clinical findings, clear cell papulosis was considered in the differential diagnosis, and the child underwent biopsy. The presence of abundant clear cells in the histology confirmed the diagnosis of clear cell papulosis. Given the benign nature of the condition, the child was reassured, and no treatment was initiated. While histopathology is the confirmatory method of diagnosis, recognizing the dermoscopy findings can aid in diagnosis.

Although hypopigmented lesions in children can be a cause of concern, awareness of clear cell papulosis helps clinicians avoid misdiagnosis and inappropriate management.

Keywords: clear cell papulosis; paediatric dermatosis; hypopigmented macules; dermoscopy

Conflicts of Interest: None declared

Funding: None

Received: 31 March 2026 Revised: 03 May 2026 Accepted: 05 May 2026

How to cite this article: Mohamed Karideen FB, De Silva A, Samaraweera S. When hypopigmented macules tell a different story: A rare case of clear cell papulosis. Sri Lanka J Dermatol. 2026;25(1):110-112. doi: https://doi.org/10.4038/sljd.v25i1.391

Introduction

Clear cell papulosis is a rare, benign paediatric dermatosis. It typically presents in children as hypopigmented macules and papules and is self-resolving. It is easily confused with pityriasis versicolor in children. While histopathology is the confirmatory method of diagnosis, dermoscopy findings may aid in diagnosis.[1]

Case Presentation

A seven-year-old girl presented with asymptomatic hypopigmented macules over the anterior chest and the upper part of the abdomen for two years. On clinical examination, small hypopigmented macules measuring 2–5 mm without scales involving the entire anterior chest and abdomen were present (Figure 1). There were no other associated abnormalities.

Figure 1. Small hypopigmented macules measuring 2-5 mm over the anterior chest and abdomen.

The lesions began on the anterior chest two years ago, and gradually increased in number, eventually covering the whole anterior chest and abdomen. Initially, she was treated for presumed pityriasis versicolor, but there was no response to treatment. Considering the clinical picture, clear cell papulosis was included in the differential diagnosis, and the child underwent a 3 mm punch biopsy to establish the diagnosis.

Diagnosis and Management: On histopathological examination, the epidermis showed acanthosis, and it contained large, clear cells with abundant pale cytoplasm and small nuclei scattered within the basal and suprabasal epidermal layers (Figure 2). Biopsy specimens also demonstrated reduced basal pigmentation. The presence of abundant clear cells in the histology confirmed the diagnosis of clear cell papulosis. Considering the benign nature of the disease, the child was reassured, and no treatment was initiated.

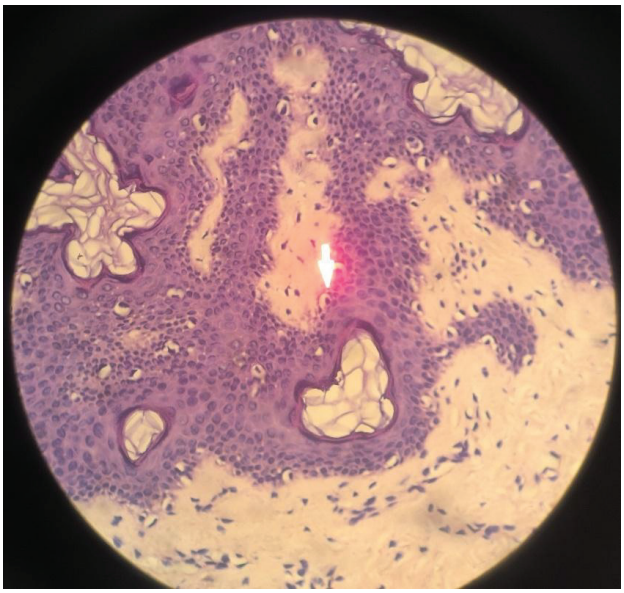

Figure 2. Histopathology showing epidermal acanthosis with large clear cells containing abundant pale cytoplasm and small nuclei scattered within the basal and suprabasal layers (H&E, ×40).

Discussion

Clear cell papulosis is a benign, rare dermatosis that can occur in children.[1] It shows a female predominance of origin and is common in the Asian population.[1] Further, it shows genetic predisposition. It commonly occurs along the milk line, particularly on the lower abdomen and pubic region.[1] It is thought to originate from secretory cells of the eccrine glands. The differential diagnoses include pityriasis versicolor, pityriasis lichenoides chronica, guttate lichen sclerosus, achromic verruca plana, and confetti lesions of tuberous sclerosis.

Dermoscopy is a useful bedside test that aids diagnosis. In clear cell papulosis, dermoscopy typically shows depigmented, homogeneous, structureless areas without scales.[2] The dermoscopy findings may help to differentiate it from its common differential, pityriasis versicolor, as it shows fine scales.

The histopathology is the gold standard of diagnosis, showing mild epidermal acanthosis and abundant clear cells with pale cytoplasm and small nuclei scattered within the basal and suprabasal epidermis, along with reduced pigmentation. These are benign cells without any nuclear atypia. The dermis is usually normal. The clear cells resemble pagetoid cells, but they are benign, and there is no relationship reported between clear cell papulosis and extramammary Paget's disease.[1] In immunohistochemistry, the clear cells strongly express cytokeratin 7 and carcinoembryonic antigen but are negative for either S100 protein or Melan A.[3]

As the condition is benign and lesions resolve spontaneously, no treatment is required.

Conclusion

Although hypopigmented lesions in children can be a cause of concern, awareness of this entity helps clinicians avoid misdiagnosis and inappropriate management. Clear cell papulosis should be considered among the differential diagnoses, particularly when lesions occur on the chest, abdomen, or pubic region.

Ethics statement

Written informed consent for publication was obtained from the parent of the child.

Authors' contributions

FB designed the study and drafted the manuscript; ADS collected patients' data, histology photographs, and reports. SS supervised the manuscript. All authors reviewed and approved the final version.

References

1. Kim JH, Jung KE, Koo DW, Lee JS. Clear cell papulosis: a case report and its possible association with epidermal immature dendritic cells. Indian J Dermatol Venereol Leprol. 2017;83(3):379–81. doi: 10.4103/ijdvl.IJDVL_1231_15
2. Leerunyakul K, Kanokrungsee S, Rutnin S. Clear cell papulosis: dermatoscopic findings and literature review. Pediatr Dermatol. 2019;36(5): 655–7. doi: 10.1111/pde.13860
3. Kim SW, Roh J, Park CS. Clear cell papulosis: a case report. J Pathol Transl Med. 2016;50(5):401–3. doi: 10.4132/jptm.2016.02.16.