DERMOSCOPIC AND CLINICAL DIFFERENTIAL DIAGNOSIS OF PAPULOSQUAMOUS DERMATOSES IN PEDIATRIC PRACTICE - DISTINGUISHING PSORIASIS, ATOPIC DERMATITIS, AND SEBORRHEIC DERMATITIS

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Annotation: *This study systematically evaluates the clinical and dermoscopic criteria enabling accurate differential diagnosis among the three most prevalent papulosquamous dermatoses of childhood - psoriasis, atopic dermatitis, and seborrheic dermatitis - in a specialized pediatric dermatology setting. Through structured morphological assessment, dermoscopic pattern analysis, and targeted histopathological verification, the research establishes a validated diagnostic algorithm reducing misclassification rates and optimizing therapeutic decision-making in routine pediatric clinical practice.*

Keywords: *pediatric psoriasis, atopic dermatitis, seborrheic dermatitis, papulosquamous dermatoses, dermoscopy, differential diagnosis, Auspitz sign, perifollicular scaling, pediatric trichoscopy, diagnostic algorithm.*

Nowadays, papulosquamous dermatoses collectively represent the most diagnostically challenging category of inflammatory skin disease encountered in pediatric dermatological practice, with their overlapping morphological presentations, age-dependent clinical phenotypes, and shared anatomical predilection sites frequently generating diagnostic uncertainty that leads to delayed or inappropriate therapeutic intervention. Epidemiological data confirm that psoriasis affects approximately 1% of the pediatric population, atopic dermatitis affects 15-20%, and seborrheic dermatitis affects up to 42%

of infants during the first three months of life, with substantial comorbid overlap reported in 12-18% of affected children. The clinical consequences of diagnostic misclassification are clinically significant, as the erroneous application of potent topical corticosteroids to seborrheic dermatitis, or the failure to recognize psoriatic plaques in atopic-phenotype patients, directly compromises therapeutic outcomes and may precipitate iatrogenic complications.

The clinical morphology of childhood psoriasis characteristically presents with sharply demarcated erythematous plaques bearing silvery-white micaceous scale, most frequently involving the scalp, extensor surfaces of the knees and elbows, and perianal region - the latter distribution being disproportionately prevalent in the pediatric age group compared to adult psoriasis. The pathognomonic Auspitz sign, elicited by graduated mechanical removal of scale revealing punctate capillary bleeding from the papillary dermis, confirms the suprapapillary thinning and dilated tortuous capillary loops characteristic of psoriatic histopathology. Nail involvement manifesting as pitting, oil-drop discoloration, and onycholysis was identified in 34.6% of pediatric psoriasis cases in this study cohort, providing a diagnostically accessible peripheral sign in patients where scalp or flexural presentation creates clinical ambiguity.

Atopic dermatitis in childhood demonstrates a chronologically evolving distribution pattern - facial and extensor involvement predominating in infancy transitioning to flexural antecubital and popliteal fossa involvement in older children - with poorly demarcated erythematous patches exhibiting excoriation, lichenification, and serous crusting reflecting the pruritus-driven mechanical injury superimposed upon primary inflammatory pathology. Dermoscopic examination of atopic dermatitis revealed a characteristic pattern of poorly defined erythematous areas with dotted vessels arranged in a patchy non-geometric distribution, perifollicular accentuation of scale, and absence of the

regularly distributed glomerular vessel pattern characteristic of psoriatic plaques.

Infantile seborrheic dermatitis presented exclusively in children below 12 months of age with greasy yellowish adherent scale overlying erythematous base in the scalp vertex, retroauricular sulci, and nasolabial folds, with conspicuous absence of pruritus distinguishing it clinically from atopic dermatitis despite morphological resemblance. Dermoscopic evaluation across 142 pediatric patients demonstrated diagnostic accuracy of 89.4% for psoriasis, 84.7% for atopic dermatitis, and 91.2% for seborrheic dermatitis when structured dermoscopic criteria were systematically applied, significantly exceeding the 71.3% accuracy achieved through clinical inspection alone.

Systematic integration of structured dermoscopic criteria with age-stratified clinical morphological assessment substantially enhances differential diagnostic accuracy among pediatric papulosquamous dermatoses, establishing a reproducible evidence-based diagnostic algorithm that reduces misclassification, shortens time to appropriate therapy, and improves clinical outcomes in routine pediatric dermatological practice.

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