



DERMATOPATHOLOGY

HOW USEFUL IS PAS STAIN TO DETECT FUNGI IN BIOPSIES FROM DERMATOSES OF THE PALMS AND SOLES

Hiba Zaaroura⁽¹⁾ - Reuven Bergman⁽²⁾

Rambam Health Care Campus, Dermatology, Haifa, Israel⁽¹⁾ - Rambam Health Care Campus, Dermatology And Pathology, Haifa, Israel⁽²⁾

Background: Periodic acid-Schiff (PAS) stain may help diagnose fungal infection in biopsies from dermatoses of the palms and soles.

Objective: To elucidate whether PAS stain should be used routinely or only when tinea is suspected clinically

Methods: 195 consecutive punch biopsies of dermatoses from the palms (90) or soles (105) were stained with PAS, regardless of the clinical differential diagnosis.

Results: PAS stain demonstrated fungi in the corneal layer of 6 (3%) of the 195 biopsies. Tinea was included in the differential diagnosis in 48 cases, of which 3 (6%) were PAS positive. PAS stain was also positive in 3 (2%) of 147 cases in which tinea was not suspected clinically. All 6 PAS positive cases were detected in less-specific or less-diagnostic histopathological patterns: non-inflammatory keratoderma(2, 11%), chronic lichenified dermatitis(2, 6%), spongiotic psoriasiform dermatitis(1, 2%), and spongiotic dermatitis(1, 4%).

Conclusions: There is a low concordance rate between the clinical suspicion and the actual demonstration of fungi by PAS stain in dermatoses of the palms and soles. Routine PAS stains in non-suspected cases has a relatively low yield which may be improved by limiting the stain to less-specific and less-diagnostic histopathological patterns.

