



DERMATOPATHOLOGY

USEFULLNESS OF IMMUNOHISTOCHEMICAL STAINING IN DIFFERENTIAL DIAGNOSIS OF VITILIGO

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Introduction: Vitiligo is an acquired depigmenting disorder of unknown etiology. Currently, the generally accepted hypothesis of the cause of vitiligo is the autoimmune one, according to which the destruction of melanocytes in vitiligo lesions is induced by autoimmune mechanisms.

Objective: The purpose of this study was to investigate the usefulness of the Melan-A and HMB45 marker for identifying melanocyte contents and helping with differential diagnosis of vitiligo.

Materials and methods: We examined 60 patients with depigmented patches who presented to the Department of Dermatology, Daegu catholic University Hospital of Daegu, Daegu, Korea, between January 2013 and July 2018. Skin biopsy samples were investigated for Melan-A (A103 clone)+ melanocytes expression and HMB45 + Pmel17 protein expression by immunohistochemical analysis and for melanin by histochemical studies with section staining by Fontana-Masson method.

Results: We compared between 40 vitiligo patients and 20 non-vitiligo patients. With Fontana-Masson staining, 40% of cases of vitiligo showed the presence of melanin. In HMB45 staining, 27.5% of vitiligo showed the presence of melanocytes. In Melan-A staining, 17.5% of vitiligo showed the presence of melanocytes. With receiver operating characteristic (ROC) curve analysis, Melan-A staining is more useful than HMB45 staining in diagnosis of vitiligo. ($P < 0.001$)

Conclusions: When suspected patients with vitiligo, using immunohistochemical study is helpful for differential diagnosis with depigmented diseases. Melan-A and HMB45 marker is useful for differential diagnosis of vitiligo. Slightly, Melan-A marker is more helpful in diagnosis of vitiligo.

