(原 著)

## p-phenylenediamine 陽性例におけるヘアダイ皮膚炎との関連性

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## Analysis of Clinical Relevance in 22 Cases with a Patch-Test Positive Reaction to *p*-Phenylenediamine

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## **Abstract**

Background: p-Phenylenediamine (PPD) is an oxidative dye which is widely used in Japan as main ingredients of various products such as hair dyes and fur dyes, however it is known as a common sensitizer. We experienced two PPD positive cases who had never been dyed their hairs. This fact led us to analyze the relevance of PPD positive reactions to hair dye dermatitis. Subjects: A total of 22 cases with positive reactions PPD by patch testing from 1996 to 1997 were analyzed. Methods: Patch testing was performed with 48-h closed method according to the ICDRG standards. A material of 1% pet PPD distributed by the JSCD was used. We studied the relevance of PPD positive reactions to their present clinical findings and past history of hair dye dermatitis. Results: There were 10 cases of present clinical findings of hair dye dermatitis including 4 cases with occupational hair dye dermatitis. There were 4 cases who had past history of hair dye dermatitis but had stopped using hair dyes. There were 3 cases who had been dyed their hairs but had never experienced hair dye dermatitis. Two cases had never been dyed their hairs. The other 3 cases had been dyed their hairs but their present clinical symptoms after hair dye were unknown. Two cases who had never been dyed their hairs showed positive reactions to diaminodiphenylmethane (DDM). They had hand dermatitis but no lesion on their scalp. They had used either a hardener or rubber gloves. We suspect that their positive reactions to PPD were cross reactions to DDM. We could make diagnoses of hair dye dermatitis followed by autosensitive dermatitis in two cases with chronic dermatitis by patch testing with PPD. Conclusion: A total of 20 among 22 cases (91%) with patch test positive reactions to PPD had experienced hair dye dermatitis. The other 2 cases, who had never been dyed their hairs, were sensitized by DDM. Patch test positive reactions to PPD have high relevance to hair dye dermatitis and may result in finding some related allergens such as DDM.

Key words: p-phenylenediamine, allergic reaction, hair dye dermatitis, patch test, diaminodiphenylmethane.