Background: Cutaneous deposit of amyloid can derive from epithelial cells in the skin or secondary to primary systemic amyloidosis. The former is cytokeratin positive, while the latter is kappa or lambda-light chain positive. Amyloid deposit is not uncommon in basal cell carcinoma, seborrheic keratosis and Bowen’s disease, but is rarely reported in melanocytic nevi. So far 4 cases (two compound and two intradermal nevi) have been reported. The origin of amyloid remains unclear, although degenerated nevus cells have been suggested to be the source.

Observation: We described 3 new cases. The patients (one female and two males, 67-72 years of age) presented with a solitary 0.5-1cm pigmented maculopapule on the flank, back and nose, respectively, for 10-20 years. The histopathology revealed junctional dysplastic melanocytic nevus in the first case and intradermal melanocytic nevus in the other two. Congo red-positive amyloid deposit was found in the papillary dermis or upper dermis in each lesion. The amyloid was cytokeratin-negative and kappa light chain focally positive in the first case, and was cytokeratin and MelanA negative in the second case. Based on the present and previous studies, amyloid deposition occurs mostly in intradermal or compound melanocytic nevi. While the negative cytokeratin staining does not support keratinocytic origin, the negative MelanA staining cannot exclude melanocytic origin, because the antigen for MelanA is a melanocyte-specific cytoplasmic protein involved in melanosome formation that could have been degraded in the process of amyloid formation. The positive kappa light chain staining in the junctional dysplastic melanocytic nevus with a moderate inflammatory infiltrate suggests another potential source of the amyloid, but systemic amyloidosis appeared less likely as the amyloid deposit was confined to the nevus itself.

Key message: Melanocytic nevus with amyloid deposit is rare, and the origin of the amyloid remains to be further elucidated.