



DERMOSCOPY AND SKIN IMAGING

## SKIN HIGH-FREQUENCY ULTRASONOGRAPHIC AND DERMOSCOPIC FEATERS OF SEBORRHEIC KERATOSIS

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Introduction: Seborrheic keratosis(SK), is easy to be confused with other diseases clinically. Skin imaging, including dermoscopy, high-frequency ultrasound, etc., is increasingly used for the evaluation of skin diseases.

Objective: To describe high-frequency ultrasonographic and dermoscopic features of SK and to explore the application value of high frequency ultrasonography and dermoscopy in the assessment of SK.

Materials and Methods: Forty-six patients with SK performed high-frequency ultrasonography and dermoscopy were collected from Department of Dermatology of Peking Union Medical College Hospital. A total of fifty lesions were analyzed with high-frequency ultrasonographic and dermoscopic features.

Results: The ultrasonographic characteristics sat 50MHz and 20MHz of SK from above to below, included enhanced hyperecho above the lesion (96%,48/50 and 78%,39/50;P=0.007), hyperechoic spots or clods in the stratum corneum (44%,22/50 and 22%,11/50;P=0.019),with shadows in posterior(68%,34/50 and 26%,13/50;P<0.001), regular figure and periphery in focus (92%,46/92 and 82%,41/82;P=0.137),heterogeneous hypoechoic lesions(100%,50/50 and 94%,47/50;P=0.079)with internal hyperechoic spots(50%,25/50 and 4%,2/50;P<0.001),the lesional bottom at the same level (80%,40/50 and 72%,36/50;P=0.349),and reduced dermal echogenicity below the lesion(100%,50/50 and 56%,28/50;P<0.001). The overall evaluation of 8 characteristics of SK by 50MHz ultrasound was significantly better than that of 20MHz ultrasound (P=0.002). The common dermoscopic features of SK were well demarcated (100%,50/50), comedo-like openings (90%,45/50), fissures and ridges/cerebriform pattern(62%,31/50), hairpin vessels(60%,30/50), multiple milia-like cysts (48%,24/50), moth-eaten border(42%,21/50) and shiny white streaks(6%,3/50). The matching coefficients of comedo-like openings under dermoscopy and hyperechoic spots or clods in the stratum corneum of ultrasonography were 42% and 20% at 50MHz and 20MHz respectively; and those of milia-like cysts and internal hyperechoic spots were 58% and 48% at 50MHz and 20MHz respectively.





Conclusions: skin high-frequency ultrasonography and dermoscopy have good application value in lesion assessment of SK from different dimensions, and 50 MHz ultrasonography has advantages over 20 MHz ultrasonography in imaging of SK.

