

Abstract (streszczenie w języku angielskim)

Basal cell carcinoma (BCC) is the most common malignant skin tumor and dermoscopy is a helpful tool in its early diagnosis. Despite the high sensitivity of this method, there are still cases with atypical dermoscopic features, in which establishing the diagnosis may be challenging. One of the directions in improving non-invasive skin cancer diagnostics is the implementation of an innovative technique—ultraviolet-enhanced fluorescence dermoscopy (UVFD).

The aim of this study was to review the current knowledge on the use of dermoscopy in the diagnosis of BCC and to assess the utility of UVFD in this indication, including the identification of structures observable with this technique.

The study was conducted at the Department of Dermatology in Rzeszów. The diagnosis of BCC was confirmed histopathologically in all cases. A Dermlite DL5 dermatoscope was used for imaging, enabling visualization in polarized dermoscopy (PD) and UVFD modes.

Based on the authors' observations, the following UVFD features of BCC were identified: dark silhouette, interrupted follicular pattern, lack of blue-green and pink-orange fluorescence, presence of pink-orange fluorescence, blue fluorescent fibers, erosions and ulcerations, arborizing vessels, white depigmentation, white clods, black globules, white-blue scales and well-demarcated borders.

The most frequent features were: dark silhouette, interrupted follicular pattern and lack of blue-green fluorescence.

BCCs located on the face more often exhibited features such as well-defined borders, interrupted follicular pattern, lack of pink-orange fluorescence and presence of erosions and ulcerations. Tumors situated within the H-zone of the face more frequently showed ulcerations, blue fluorescent fibers and lack of blue-green fluorescence. Tumors smaller than 5 mm in diameter more commonly demonstrated well-demarcated borders, lack of pink-orange fluorescence and interrupted follicular pattern, while larger tumors more often showed erosions, ulcerations and white-blue scales. Nodular BCCs were characterized by interrupted follicular pattern, lack of follicular fluorescence, arborizing vessels and the presence of erosions and ulcerations, whereas superficial BCCs showed white depigmentation. Pigmented tumors

exhibited black globules, while non-pigmented tumors were marked by interrupted follicular pattern, arborizing vessels and lack of follicular fluorescence.

The use of UVFD potentially allows for improved visualization of BCC margins, particularly in lesions located on the head and neck, which may be of clinical importance when planning surgical treatment. At the same time, UVFD was found to be less sensitive than PD in detecting certain structures, such as vessels and erosions.

These findings confirm that UVFD is a valuable complementary tool in BCC diagnostics, enhancing the capabilities of conventional dermoscopy.