Пигментни тумори коже: неинвазивна дијагностика и преоперативно мерење дебљине меланома

Pigmented tumors of the skin: noninvasive diagnostics and preoperative measuring of melanoma thickness

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In this monograph, the author presents in detail, the best method for preoperative diagnostics of pigmented (and non-pigmented) tumors of the skin – dermatoscopy (dermoscopy, epiluminescence microscopy). The clinical rule that melanoma must have many colors, irregular borders, to be bleeding, to be elevated, to hurt, to have hypo-pigmentations, is not always applicable, especially in small or early lesions. Conventional diagnostics means an examination of a suspicious change by naked eye sometimes with the use of a magnifier. A special problem in diagnostics is pigment forms of other tumors which can simulate melanoma: basocellular carcinoma, seborrheic keratosis, hemangioma, and other rarer tumors. Therefore, additional device – dermatoscope is employed. There are four most important rules, so-called algorithms for dermatoscopic examination of pigmented tumors of the skin: ABCD algorithm, Menzies method, Seven-point checklist, and Pattern analysis, and none of the algorithms achieves 100% sensitivity, i.e. none of them alone is sufficient in detecting melanoma in 100% of cases, and it is thus necessary to utilize advantages given by the other algorithms. This is why it is sometimes necessary to combine several of the algorithms. The author describes in detail, sensitivity, specificity and diagnostic accuracy of all algorithms and points that both for nonmelanocytic and melanocytic lesions preoperative clinical diagnostics is enhanced and which algorithm is the best for diagnostics of early melanoma.

In the next part of the monograph, the author describes the problem of "grey-zone" lesions – high-grade dysplastic nevi (melanocytic nevi with severe histological dysplasia). According to her results, dermoscopic characteristics, in most high-grade dysplastic nevi, are corresponding to dermoscopic characteristics of melanoma. Dermatoscopy alone can indicate dysplasia in a nevus which leads to monitoring or excision and it may help to excise melanoma in the moment when it has no clear-cut malignant dermatoscopic characteristics. Also, the serious problem of hidden melanoma, the so-called *melanoma incognito,* and "featureless melanoma" – melanoma with non-specific clinical-dermoscopic findings is described in detail. The author has pointed to the most important clinical-dermatoscopic aspects of how not to miss featureless melanoma.

Also, the author gave examples of melanoma that would have been missed if dermatoscopy had not been done. In most cases, it happens because of large diameter melanoma or in collision tumors (collision of melanoma with another type of tumor). One of the possibilities for avoiding this serious medico-legal mistakes is *ex vivo* dermatoscopy – examination of the lesion after it is excised, and before cutting and molding.

In the next section of the monograph, the author described one-year dermatoscopic follow-up of common melanocytic nevi and the influence of sunscreens on dermatoscopic structures. The author identified the type of nevi and age of the patients most prone to definitive dermatoscopic changes.

In the last section of the monograph, the author described an original method for evaluation of melanoma thickness. Two borders of melanoma were evaluated: 0.75 mm and 1.0 mm. There are only a few experimental studies regarding the preoperative evaluation of melanoma thickness in the world literature. By combining clinical-dermatoscopic parameters the author assessed preoperative melanoma thickness with high positive predictive value. The author's model of preoperative melanoma thickness assessment requires easily available clinical parameters of diameter, area, and tumor elevation. The presence or absence of dermoscopic parameters is noted but they are not quantified which is extremely significant (accord of various researchers is achieved without the risk of subjectivity and personal experience).

In conclusion, greater sensitivity and specificity of dermoscopy in relation to standard clinical examinations is demonstrated, therefore dermatoscopy is recommended as a necessary supplement to a clinical finding.

The author regards that the model of clinical-dermoscopic melanoma thickness assessment is extremely applicable and reproducible model in practice; it does not require expensive devices, additional examinations or long experience in dermoscopy, thus being applicable in various centers where melanoma is treated. It is the only model so far applicable for two borders of melanoma thickness.

У овој монографији разматрана је дигитална дерматоскопија (дермоскопија, епилуминисцентна микроскопија) као доступна, прецизна и брза метода за преглед пацијената са пигментним туморима коже. Истовременом применом АБЦД алгоритма, Мензиес метода, Листе 7 тачака и Анализе образаца, одређују се њихова сензитивност, специфичност, предности и недостаци дијагностике меланоцитних тумора коже у односу на златни стандард – хистологију. Кроз истраживање, у овој монографији дати су одговори на питања која се не могу наћи у стандардним уџбеницима дерматоскопије, на пример: који је од четири најкоришћенијих алгоритама најбољи, које проблеме можемо очекивати у дерматоскопској дијагностици меланома, које резултате постижу граничне меланоцитне лезије – тзв. високо диспластични меланоцитни невуси, да ли антисоларне креме штите младеже или не. Ауторка се посебно бави питањима златног стандарда – хистопатолошке дијагностике и разматра како дерматоскопија може бити од помоћи хистологији. У овој студији посебно је анализирано експериментално одређивање дебљине меланома у односу на две границе ТНМ класификације. С обзиром на то да је показана већа сензитивност и специфичност дерматоскопије у односу на стандардни клинички преглед, дерматоскопија се препоручује као неопходна допуна клиничког налаза.