Clinical case of basal cell carcinoma therapy using 5 % imiquimod cream

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Aim. To describe clinical case of the basal cell carcinoma treatment, determine personalized diagnostic algorithm of the patient management with further selection of the therapy method regarding visual, dermatoscopic and pathomorphological picture of disease.

Materials and methods. The own observation of clinical case of local treatment of the patient with basal cell carcinoma by means of 5 % imiquimod cream was described.

Results. Based on comprehensive examination of the patient with determination of features of visual, dermatoscopic and pathohistological picture the diagnosis “Basal cell carcinoma, nodular variant” was determined. Taking into account considerable traumatization and possibility of functional motor impairment after surgery it was determined to replace the treatment approach with the local use of 5 % imiquimod cream according to the standardized scheme. Step-by-step application of topical agent on the upper part of BCC affected area had also influence on the non-treated zone which began to regress by itself starting from the 9th week.

Spontaneous regress of BCC stipulates rare and unusual course of disease. Control clinical and pathomorphological examination did not reveal any neoplastic processes in skin after 12 weeks course of treatment with 5 % imiquimod cream and within 1 year of further observation. In case of BCC the possibility of using topical agents increases therapeutic potential and compliance between doctor and patient.

Conclusions. Annual increase of quantity of new cases of non-melanoma skin tumours and variability of clinical implications enable the rise of oncological suspicion level among practicing physicians. Creation of personalized algorithm of diagnostics ensures making the diagnosis timely and selection of differential treatment approach. Neglecting the neoplasm with significant affected area size the topical use of 5 % imiquimod is the effective alternative to invasive intervention for treatment of patients with the basal cell carcinoma.

Key words: basal cell carcinoma, skin neoplasms, topical therapy.

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A – research concept and design; B – collection and/or assembly of data; C – data analysis and interpretation; D – writing the article; E – critical revision of the article; F – final approval of the article

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Клінічний випадок терапії базально-клітинної карциноми з використанням 5 % крему іміквімоду

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Мета роботи – описати клінічний випадок лікування базально-клітинної карциноми (БКК), визначити персоналізований діагностичний алгоритм ведення пацієнта з дальнім вибором методу терапії, спираючись на візуальну, дерматоскопічну та патоморфологічну картину захворювання.

Матеріали та методи. Навели власне спостереження клінічного випадку місцевого лікування хворої на базально-клітинну карциному з використанням 5 % іміквімод-крему.

Результати. На підставі всебічного обстеження хворого з визначенням особливостей візуальної, дерматоскопічної та патогістологічної картини встановили діагноз базально-клітинної карциноми, нодуллярний варіант. Враховуючи чималу травматизацію та можливість функціональних рухових порушень після оперативного втручання, вирішили змінити тактику лікування на користь місцевого використання 5 % іміквімод-крему за стандартизованою схемою. Поетапне нанесення топічного засобу на верхню частину вогнища БКК вплинуло також на неліковану ділянку, що починала регресувати самостійно, починаючи з 9-ї тижня.

Спонтанний регрес БКК характеризує рідкісний і неординарний перебіг захворювання. Контрольне клінічне та патоморфологічне обстеження не показало жодних неопластичних процесів у шкірі після 12-тижневого курсу лікування 5 % іміквімодом, а також протягом 1 року спостереження. Можливість використання топічних засобів при БКК збільшує терапевтичний потенціал і комплаєнс між лікарем і пацієнтом.

Висновки. Щорічне збільшення кількості нових випадків немеланомних пухлин шкіри та варіабельність клінічних проявів зумовлюють підвищення рівня охоронки стаціонарності лікарських впроваджень.

Створення персоналізованого алгоритму діagnostики забезпечує своєчасне встановлення діагнозу та вибір диференційованої тактики лікування. Незважаючи на чималу травматизацію та можливість функціональних порушень після оперативного втручання, топічне використання 5 % іміквімоду – ефективна альтернатива інвазивним втручанням під час лікування пацієнтів із базально-клітинною карциномою.

Ключові слова: базально-клітинна карцинома, новоутворення шкіри, топічна терапія.

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Clinical case of basal cell carcinoma treatment using 5 % imiquimod cream

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Aim
To describe clinical case of basal cell carcinoma treatment, determine personalized diagnostic algorithm of patient management with further selection of the therapy method based on visual, dermatoscopic and pathomorphological picture of disease.

Materials and methods
Own observation of the clinical case of local treatment of patient with basal cell carcinoma using 5 % imiquimod cream is described. Examination and treatment were made on the basis of Department of Dermatovenerology and Cosmetology with the Course of Dermatovenerology and Aesthetic Medicine of the Faculty of Postgraduate Education and Municipal Institution “Zaporizhzhia Regional Dermatovenerological Clinical Dispensary” of Zaporizhzhia Municipal Council.

Clinical case
Patient A, born in 1980, with complaints of visible neoplasm on the shoulder skin visited dermatovenerologist of Regional Dermatovenerological Clinical Dispensary. From the case history it is known that for the first time she had noticed the affected area 5 years ago but hadn’t asked for professional aid and hadn’t treated it by herself. During last 1.5 years the patient had noticed the increase of neoplasm size. At the moment of examination on the right shoulder skin there was the plaque up to 5–6 cm in diameter with distinct limits of hot pink color with partially available crusts, swelling at the edges stipulated by more evident infiltration (Fig. 1). Dermatoscopically the following patterns were observed: gray-blue spots and ovoid structures, single focuses of pigmentation in form of “maple leaf” and also branched tree-shaped vessels associated with erythema, focally located erosions.
In order to verify the diagnosis, the morphological study by means of the skin punch biopsy was performed. Presence of tumour meeting the basal cell carcinoma by its histological structure was determined in specimen of derma.

The pathohistological conclusion: basal cell carcinoma, nodular variant (ICD-O 8097/3). Surgical procedure for removal of the neoplasm was proposed to the patient. But the patient refused the invasive treatment, taking into account sizes of BCC, probability of formation of the rough painful scar in future and occurrence of functional motor impairment of the upper limb. Based on flat refusal of the patient to have surgical procedure and impossibility of treatment in the Regional Cancer Centre (for family reasons) it was decided to assign therapy with topical use of 5 % imiquimod cream.

In connection with the size of affected area it was proposed to use step-by-step treatment of basal cell carcinoma. Conventionally the neoplasm was divided into two parts, 5 % imiquimod cream was applied only to the area of 2 × 3 cm in size in the upper part of BCC. Topical treatment was made according to the following scheme: the cream was applied one time per day, every day within 5 days with further 2-day break in therapy. In two weeks of treatment it was noted that the affected area size had increased almost twice due to the evident inflammation as the expected result of imiquimod use (Fig. 2).

It is rather non-typical that starting from the 9th week of local therapy the part of basal cell carcinoma which was not involved in treatment started to regress by itself (Fig. 3).

Complete course of imiquimod use was 12 weeks (Fig. 4).

In 2 months after the treatment was complete the skin specimens were taken from 4 different parts of affected area by means of punch biopsy method in order to check quality of the therapy (Fig. 5). Pathohistologically the basal cell carcinoma signs were not detected in any specimen. During control examination of the patient in 6 and 12 months no signs of progression of the affected area or formation of new BCC were detected (Fig. 6).

Discussion

Annual increase of number of the basal cell carcinoma new cases promotes the introduction of precise and re-

Fig. 1. BCC at the beginning of the therapy.
Fig. 2. In two weeks after beginning of the treatment.
Fig. 3. End of the 9th week of the treatment.
Fig. 4. The 12th week of the treatment.
Fig. 5. In 2 months after the treatment was complete.
Fig. 6. In 1 year after the treatment was complete.
liable methods in patient examination algorithm. Clinical picture is rather unstable, thus, focusing only on examination of the patient it is possible to make errors in detection and further management of such patients.

If the signs of multiple BCC are revealed in young age it is necessary to perform differential diagnostics with genodermatoses. Gorlin-Goltz syndrome is inherited autosomal dominant disease for which (except for great number of BCC) the concomitant lesions of skeletal, central nervous, urogenital and cardiovascular systems are typical. Bazex-Dupre-Christol and Rombo syndromes are very rare nosologies [7].

Differential diagnostics of the basal cell carcinomas and tumours of hair follicles (trichoepitheliomas, tricho-blastomas), squamous cell carcinomas, Merkel cell carcinomas is difficult both for clinical physicians and pathologists [8,9].

In order to improve diagnostic measures in addition to the visual assessment of neoplasms there are dermatoscopy and pathomorphological study which promote selection of not only well-grounded but personal scheme of treatment.

Assessment of dermatoscopic picture increases probability of establishing a correct diagnosis. The present non-invasive diagnostic method has sensitivity of 91.2 % and specificity of 94.8 % during examination of the basal cell carcinomas. Increase of the method sensitivity was registered in case when dermatoscopy was performed by skilled specialists based on personal dermatoscopy but not studying only the increased image of neoplasm [10]. Besides J.A.Aguilar et al. determined dermatoscopic patterns of the basal cell carcinoma which are predictors of clinical response for the therapy with imiquimod. Available focally located gray spots and multiple erosions up to 2 mm are the most typical BCC signs which have a good reaction on the local treatment [11].

The “gold standard” in BCC diagnostics is the pathomorphological study for determination of neoplasm type that is not only prognostic marker but also indicator of treatment method selection [12]. According to data of M. C. Cameron al. 50–80 % of affected areas is the nodular type whereas 10–30 % is referred to the superficial basal cell carcinoma [13].

Selection of the treatment method depends on results of diagnostics and assessment of general state of the patient and availability of comorbid pathology. Thus, the first line of therapy is the standard surgical excision and Mohs surgery especially if high risk BCC subtype is available. According to data of C. H. Williams et al. five-year indicator of successful application of imiquimod in case of nodular and superficial variants made 82.5 % whereas for the surgery it made 97.7 % [14].

If the patient has low risk BCC or concomitant factors that is the contraindication for application of non-invasive methods the topical therapy will be used. For this treatment it is reasonable to use imiquimod, 5-fluorouracil locally or photodynamic therapy [15,16]. Jansen H. E., Maud et al. showed that possibility of absence of tumour in 5 years after treatment of superficial BCC for photodynamic therapy with methyl-aminolevulinate made 62.7 %, for imiquimod – 80.5 % and 70 % for 5-fluorouracil. The best indicator of efficiency is the therapy with use of topical imiquimod [17]. Timely detection, diagnostics of the skin neoplasma is the basis for rational and reasonable selection of the treatment approach.

Conclusions

1. Considerable spreading and variability of the clinical picture of basal cell carcinomas promotes formation of diagnostic algorithm for timely verification of diagnosis and selection of differential approach for the treatment.
2. The main components of diagnostic measures in case of BCC are thorough inspection of the affected area, dermatoscopic and pathomorphological observation.
3. Neglecting the neoplasm with significant affected area size the topical use of 5 % imiquimod is the effective alternative to invasive intervention for treatment of patients with the basal cell carcinoma that increases compliance between doctor and the patient.

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