CASE REPORTS



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EARLY ONSET BASAL CELL CARCINOMA: SURGICAL APPROACH

 M. Betekhtin¹, J. Ananiev², G. Tchernev³, L. Zisova⁴, S. Philipov⁵ and R. Hristova⁴
¹Moscow Medical Multidisciplinary Center, Moscow, Russia
²Department of General and Clinical Pathology, Medical Faculty, Trakia University, Stara Zagora, Bulgaria
³Polyclinic for Dermatology and Venereology, "St. Kliment Ohridski" University, University Hospital Lozenetz, Sofia, Bulgaria
⁴Dermatology and Venereology Department, Medical University, Plovdiv, Bulgaria
⁵Department of General and Clinical Pathology, Medical Faculty, "St. Kliment Ohridski" University, Sofia, Bulgaria

Summary. Basal cell carcinoma (BCC) is the most frequent non-melanoma skin cancer. Only 5-15% of BCC cases can be found in patients aged 20-40 years (so-called early onset). The early onset BCC is characterized by active and aggressive tumour growth, clinically presenting in most of the cases as a morpheaform, locally infiltrating or recurrent BCC. Despite the advances in the study of the pathogenesis of this tumour, surgery remains the most used, most effective and most suitable treatment modality. We describe a case of a 39-year-old woman who developed an early onset BCC of the nasolabial fold. After the subsequent surgical excision an excellent cosmetic result was achieved.

Key words: Basal cell carcinoma, early onset, surgery, excision

INTRODUCTION

B asal cell carcinoma (BCC) is the most frequent non-melanoma skin cancer [1, 2]. According to different authors the frequency of BCC accounts to 70-85% [1, 2]. BCC affects different kind of people with high prevalence in individuals with type 1 or type 2 skin [1, 2]. Usually BCC occurs in patients after their 40's. Only 5-15% of BCC cases can be found in patients aged 20-40 years [1].

The clinician should also remember that BCC is one of the main features of Gorlin syndrome (Basal cell nevus syndrome) [3]. In this autosomal dominant inherited syndrome the patients could develop hundreds of invasive tumours on the area of the face, trunk and extremities [3]. Additional symptoms are mental retardation,

odontogenic jaw cysts, bifid ribs and pectus excavatum, palmar and plantar pits, ectopic calcification (e.g. falx cerebri), etc. [3].

The stage of BCC is determined according to three main parameters – diameter, depth of invasion and presence of metastasis [2]. BCC in stage III and IV is diagnosed as advanced [2].

According to the histological classification of WHO (1996), BCC are included in skin cancer group with low rate of local-invasive tumour growth, and low rate of development of metastases. Nevertheless, BCC can cause significant damage of the skin and soft tissues due to ulceration (the so-called ulcus rodens) [2, 4].

BCC usually is located on the head (both face and scalp), neck and hands – places with chronic sun exposure. BCC is differentiated from Bowen's disease, malignant melanoma, melanocytic nevi, angiofibroma and others [2]. Dermatoscopy helps clinicians to distinguish BCC (leaf-like areas, spoke wheel areas, large blue-gray ovoid nests, multiple blue-gray globules, arborizing vessels and ulceration, keratin masses, superficial scale) [5].

Biopsy remains a gold standard for diagnosis [2, 6]. A skin biopsy confirms the diagnosis and resolves the BCC histologic subtype [10].

There are a lot of treatment modalities for BCC: i) noninvasive treatment options as the systemic and local application of different drugs (5-fluorouracil, imiquimod, interferon alfa-2b, tazarotene, visomodegib, PDT), and ii) invasive treatment options - surgical (electrodesiccation and curettage, excisional surgery, Mohs surgery) [2, 7]. Surgical approach seems to be the most applicable, most effective and most suited therapeutic modality [2]. However, result, especially cosmetic, depends at the same time on the individual surgeon's qualification [2, 7, 10].

CASE REPORT

A 39-year-old woman requested an appointment to a doctor with a lesion on the skin of the right cheek near the nasolabial fold (Figs. 1a-1d). There was the lesion with an elliptical shape, perl-like edges, silver pityriasis-like fine desquamation in the periphery of the lesion, and clinical signs of infiltrative growth with a central ulceration (Figs. 1a-d). Size of the lesion: 3.5 x 2 cm. Regional lymph nodes were not enlarged. The lesion had been seen by the patient 2-2.5 years ago and had been treated by different external ointments, creams and solutions (clotrimazol, fucidine creme, fucicort cream and others). Basal cell carcinoma was suspected clinically and treated sugically (Figs. 1a-1d, Figs. 2a-2d). Additionaly, a dermal hyperpigmented lesion (dermal melanocytic naevus) has been clinically observed in the décolleté area (Figs. 3a-3d). Additional studies and paraclinical investigations did not show evidence of metastatic disease.

Foremost, the treatment modality for both lesions (surgical excision) and the size of surgical field were determined (Figs. 2a-2d, Figs. 3a-3d). Histological examination was performed. The histopathology has confirmed the diagnosis of BCC. The postoperative period for both lesions was uneventful.

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Fig. 1a. Lesion suspicious for BCC located in the area of the nasolabial fold; 1b: Preparation of the surgical lines before the excision was done; 1c: Good cosmetic results one month after surgical treatment; 1d: Excellent cosmetic result 3 months after the surgical excision in the area of the face



Fig. 2a. Intraoperative image of the skin defect after the tumorous tissue has been surgically removed from the area of the nasolabial fold; 2b, 2c: Intraoperative image after the intradermal sutures have been done; 2d: Postoperative clinical picture



Fig, 3a Dermal melanocytic naevus in the area of décolleté. Preparation of the surgical lines before the excision was done; 3b, 3c: Intraoperative pictures showing the surgical removal of the melanocytic lesion; 3d: Postoperative clinical picture

DISCUSSION

BCC comprises approximately 80 percent of non-melanoma skin cancers, with mortality rate below 1% [8, 9]. Metastasis is very rare in BCC, with a relative rate of 0.0028% to 0.5% [10].

BCC is a multifactor disease [2]. There are many theories about its etiology and scientists agree that BCC results from multifactorial causes such as environmental and host factors [2, 11].

In case of early onset, the situation is not so clear. For instance, Alcay et al. suggested, that BCC in children results from genetic predisposition and UV exposure [12]. However, the observation of Turan et al. argued against UV exposure as a cause of BCC [13]. According to Griffin et al., childhood BCCs have not been linked to any known underlying conditions and are characterized by aggressive clinical course [14].

There is one more supposed reason of early onset BCC – this is the well-known human papillomavirus coinfection [15]. But till now, an ultimate conclusion has not been made, as evidence to support it is controversial [15].

Nevertheless, scientists concluded by a solid vote, that gene mutations lead to early tumorogenesis [16].

New data of BCC etiology allows to invent different treatment modalities, but in the most of the cases surgery stays in the first ranks [2, 10]. This relates to both price and duration of the treatment, and the fact that in case of early onset, BCC is characterized by active growth. According to Leffell et al. and Betti et al., younger patients (< 40 years) have histological and clinically aggressive form of BCC [1, 17]. They noted, that aggressive-growth forms of basal cell carcinoma include morpheaform, infiltrating, and recurrent BCCs [1, 17]. We find the management of BCC, introduced by Dandurand et al., and enriched by supplemental factors such as patient and practitioner preferences (patient's choice; likely cosmetic and functional outcome; general health and life expectancy; concomitant treatment and disease; availability of techniques; practitioner's competence), appropriate in clinical practice and, clearly, in our case [18].

Most of the advanced BCC are in stage III. Tumour with a diameter of 5 cm or more has to be considered a giant form of BCC. In such cases, around 40% of patients could develop recurrence, which partly depends on the choice of treatment modality, or could present with metastasis within the following 2 years [19].

We considered the surgical approach with a 3 mm surgical margin from the primary tumour lesion, mentioned also by Gulleth et al., a good choice, as it produces good aesthetic results and cure rates of approximately 95% [20].

CONCLUSION

The present description of BCC, being a progressive disease with life quality-threatening complications, can be sometimes a diagnostic challenge for dermatologists and surgeons. Early onset of BCC should not confuse the clinicians, but they must pay attention to the possibility of aggressive clinical course of the disease if, for example, a metatypical type of BCC has been histopathologically verified [10]. Hence, the accurate and timely diagnosis of BCC is the most important [2].

Surgical approach in a case of suspected BCC of the nasolabial fold seems to be one of the best treatment choices if the lesion is relatively small, well demarcated from the health tissue and the clinical finding suggests that the defect could be closed without additional specific plastic technique [2, 10].

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- Corresponding author:

Assoc. Prof. G. Tchernev Polyclinic for Dermatology and Venereology "St. Kliment Ohridski" University of Sofia University Hospital Lozenetz 1 Kozyak St. Bg – 1407 Sofia