ANALYSIS METHODS OF TREATMENT AS RECURRENT FACTOR OF BASAL CELL CARCINOMAS

LEONARD GURGAS¹, TONY HANGAN¹, SERGIU CHIRILĂ¹, NATALIA ROȘOIU¹,²

¹Univ. Ovidius Constanța, Romania, Faculty of Medicine
²Academy of Romanian Scientists, Bucharest, Romania

SUMMARY

Background: Basal cell carcinomas are tumors with high incidence in recent years. Locally destructive human body can have profound effects, so choice of therapeutic methods for their removal is very important. The study analyzes the statistical methods of treatment used in the removal epitheliums and their link to the occurrence of relapses.

Methods: The study is observational. It was conducted in the Dermatology Clinic Emergency County Hospital Constanța, between 01.01.2004 - 31.12.2013. The study included a total of 634 patients treated in the clinic who had basal cell epithelium. Indicators taken into account were: tumor removal therapeutic method used and the number of relapses.

Results: More than half of the patients, 347 were treated using electrocautery (54.73%). Another method associated electrocautery with contact-therapy, 98 cases (15.45%). Surgical excision were subjected 91 patients (14.35%). Contact radiotherapy was applied in 80 patients (12.61%). A small percentage, 0.11% were used cytostatic and 1.73% cytostatic with electrocautery.

Conclusions: There were 81 cases that have relapses (12.77%). Electrocautery has resulted in an increased relapse rate (12.1%). Instead, increased effectiveness registers surgical excision; recurrence rate after this method is only 5.49%. In the contact radiotherapy, Chaoul, 14 patients had recurrences (17.7%). Treatment with more relapses is with topical chemotherapy (71.42%), followed by treatment of the associated electrocautery + topical chemotherapy (45.45%).

Key-words: carcinoma, therapy, excision, electrocautery, relapse

RÉSUMÉ

Méthodes d’analyse du facteur récurrent comme traitement des carcinomes baso-cellulaires

Background: Les carcinomes baso-cellulaires sont des tumeurs à forte incidence dans ces dernières années. Ayant une action locale destruictrice sur le corps humain, ils peuvent avoir des effets profonds, ainsi que le choix des méthodes thérapeutiques pour leur suppression est donc très important. L’étude analyse les méthodes statistiques de traitement utilisées dans l’enlèvement des épithéliums et leur lien avec la survenue de rechutes.


Résultats: Plus de la moitié des patients, 347 ont été traités à l’aide de bistouri électrique (54,73 %). Une autre méthode a associée l’électro-cautérisation à la thérapie de contact, 98 cas (15,45 %). 91 (14,35 %) patients ont été soumis à l’excision chirurgicale. La radio-thérapie de contact a été appliquée chez 80 patients (12,61 %). On a utilisé dans un pourcent réduit, 0,11 %, des cyto-statique et 1,73 % des cytostatique avec electrocautérisation.

Conclusions: Il y ent 81 cas avec de rechutes (12,77 %). L’électro-cautérisation a eu pour résultat un taux accru de rechutes (12,1 %). Au lieu de cela, l’excision chirurgicale a enregistré une efficacité accrue; le taux de récurrence de cette méthode est seulement de 5,49 %. Dans la radiothérapie de contact, Steve Chenier, 14 patients avaient des récidives (17,7 %). Le traitement avec la pluspart de rechutes est la chimio-thérapie topique (71,42 %), suivi du traitement associé entre l’électro-cautérisation et la chimio-thérapie topique.

Mots clés: thérapie, excision, bistouri électrique, carcinome, rechute
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INTRODUCTION

Basal cell carcinoma is the most common form of skin cancer caused by exposure to ultraviolet radiation from the sun, with slow growth and rare metastasis. Its incidence is estimated to 150/100 000 inhabitants per year in Europe and in the US has higher values (300/100 000) and in Australia (1600/100 000). It has doubled in the last 15 years (1). Basal cell carcinoma accounts for nearly 25% of all cancers in the human body and for almost 75% of skin malignancies; approximately 85% of basal cell carcinomas develop in the head and neck region (2). For example, in men, the areas of maximum irradiation, therefore most exposed to actinic radiation are: cheeks, eyes, nose, forehead, ears and scalp. The maximum irradiation areas in women are: cheeks, nose, nasal groove and eyes (3). Most lesions are easily kept under control through various surgical techniques. However, serious problems can intervene when they appear in harm’s head. In these regions the tumor can invade deep, causing massive damage to the muscles and bones (4). While typically a slow-growing tumor for which metastases are rare, basal cell carcinoma can be locally destructive (5) negligence to therapy may lead to mutilations by affecting the skin structures (6).

The clinical presentation of basal cell carcinoma can be extremely variable: nodular, ulcerative, superficial, morpheiform, pigmented, and fibroepithelioma of Pinkus are the main clinical variants described (7). A more clinically relevant is basal cell carcinoma in terms of its recurrence: low risk of recurrence (noduloclericative carcinoma, fibroepithelioma Pinkus) and the increased risk of local recurrence (superficial, infiltrative, morpheiform). From a histopathological point of view various subtypes have been described: nodular, superficial, infiltrating, morpheiform, micro nodular, fibro epithelial basal cell carcinoma and basosquamous carcinoma (7).

Basal cell carcinoma recurrence is conditional by clinical and histological factors, the clinical once have conection carcinoma location. The highest risk of recurrence is cephalic end and nose. Of course, the diameter of the tumor can be a factor of recurrence of the disease. Histologically, severe prognosis envisages severe histological scleroderma forms (8).

The present study focuses on statistical analysis of therapeutic methods used and their relation to basal cell carcinoma recurrence. The most common therapy involves surgical excision of the tumors. This can, however, be disfiguring, and non-surgical approaches are being implemented (9). Other therapeutic options include Mohs surgery, radiation therapy, cryosurgery, electrocautery small and superficial lesions, laser therapy, photodynamic therapy, topical chemo-therapy (5-fluorouracil), topical immunotherapy (imiquimod) (10). Choice of therapy to be used is complex and must consider the type of tumor, location, cosmetics, recurrence, and patient preference co morbidity (11).

Scope

The purpose of the study is to analyze the influence of therapeutic methods used to treat basal cell carcinomas relapses.

Material and Methods

The study is observational. It was conducted in the Dermatology Clinic Emergency County Hospital Constanta, between 01.01.2004 - 31.12.2013. The study included a total of 634 patients treated in the clinic who had basal cell epitheliums.

Indicators that we follow: tumor removal therapeutic method used and the number of recurrences of basal cell carcinomas.

Data were introduced electronically in a database made with Microsoft Access application and its processing was performed using Microsoft Excel. We used Chi-square test to determine the statistical significance of the association between types of therapeutic intervention and relapse basal cell carcinomas. The threshold for statistical significance is especially p≤0.05. H0 initial hypothesis is that therapeutic methods used did not influence disease recurrence. Alternative hypothesis H1is the link between these therapies and relapse basal cell carcinomas.

RESULTS

The distribution of cases by clinical form of basal cell carcinomas

From the interpretation of the graph above (fig. 1) it appears that almost half of the analyzed cases are the type nodule ulcerative epitheliums: 54.43% of 634 tumors. A low incidence stands at clinical forms erythematous and teretant superficial type, both with a rate of 0.63%, and sclerodermaform carcinoma, 0.31%, according to data contained in the literature.

Graphical representation of histopathological forms of basal cell carcinomas

There is a high frequency of histopathological forms of adenoid carcinoma (28.08%) cyst (26.83%) and solid (22.23%), and a minimum frequency presents sclerodermaform epitheliums (0.31%). (fig. 2)

Statistical analysis of the therapeutic methods

The study of this indicator is shown in the table 1. It may be noted that more than half of patients with basal cell epitheliums were treated using electrocautery, 347 cases, representing 54.73%. A second therapeutic method used, in order of frequency, 98 cases (15.43%), electrocautery associated with contact-therapy being preferred in cases that do not lend themselves to electrocautery or surgical excision. Surgical excision with wide margins is recommended in cases amenable to surgery or where follow-up is questionable 11 (12). In our study we have undergone this surgery for 91 patients with epitheliums (14.35%). Contact radiotherapy was applied in 80 patients (12.61%). As for the use of cyto-
For the period considered in this study, according to Table 2, 634 cases, 81 had recurrences, representing a rate of 12.77%. Although electrocautery is the main method of treatment as noted above, our study showed that this method results in an increased relapse rate (12.1%) compared to surgical excision, caused by advanced stage tumors when seeing the doctor. Instead, increased effectiveness registers surgical excision; recurrence rate after this method is only 5.49%. Treatment with the more relapses is with topical chemotherapy (71.42% relapses), followed by treatment of the associated electrocautery + topical chemotherapy (45.45%).

A statistical analysis using Chi-square test values Table 3 for a threshold of statistical significance $P = 0.0098 < 0.05$, rejecting the hypothesis $H_0$ and $H_1$ hypothesis is accepted, in the sense used in healing therapy relapse rate their influence basal cell carcinomas.

There is an increase in the frequency of relapses basal cell epithelioma depending on the time when patients come to the doctor for treatment.
DISCUSSIONS

From studying the graph in fig. 1 it shows that almost half of the cases analyzed are of the nodulo-ulcerative epithelium type: 54.43% of the 634 tumors. This very high percentage is inconsistent with the literature confirming the maximum incidence of the clinical nodular pearl which, in our analysis, ranks second with 169 cases (26.66%) (8 p. 235). Clinical forms with the lowest risk of recurrence are noduloulcerative ones and the increased risk of local recurrence is superficial, infiltrative, morpheiform (13).

Analyzing the data in fig. 2, the frequency of histopathological forms of basal cell carcinomas, we must bear in mind that these percentages have only relative values, because the fragment analyzed by tumor biopsy may not be relevant for the whole tumor. However, there are studies proving that in 84% of lesions which were previously thought to be basal cell carcinomas, proved in the end, histologically being basal cell carcinomas (14).

Regarding the statistical analysis of therapeutic methods used (table 1), and recurrence of tumors according to them (table 2), it may be noted that more than half of patients with basal squamous carcinomas were treated using electrocautery, 347 cases, accounting for 54.73 %. This method was chosen for small and superficial epitheliums, given that electrocautery produces a local destruction of tumor lesions, and avoids bleeding and superinfection (8). Duration of healing is long and there is a risk of hypertrophic scars (15). According to this study, this method is third in the successful treatment of the disease in 42 patients (12.1%) having relapses, so it is not the optimal choice of therapy.

Surgical excision remains the method of choice if terbrant forms, with capacity invasive bone structures and radio necrosis risk. It is recommended in cases subjected to surgery or if the prosecution is questionable therapy (12). This method allows removal histological confirmation of the tumor, while other forms of treatment are based on the clinical observation intend to confirm the success of treatment for five years (11). In our study 80 patients were treated so (12.61%), 14 of whom experienced recurrences (17.7%). From this study it appears that a superior method as efficiency is the electrocautery with contact radiotherapy (Chaoul): of the 98 patients treated so (15.45%), only 10 had tumor recurrence (10.2%).

As used cytostatics, it is practiced in a quite low percentage, 0.11%, as a single method, and 1.73% in conjunction with electrocautery, due to the fact that the time of application of treatment, tumor formations were large, it can’t be solved by the application of chemotherapy. But as efficiency, cytostatic therapies, and also with electrocautery are the last in efficiency in the treatment of basal cell carcinomas, five recurrences of 7 (71.42%) and 5 recurrences of 11 (45.45%). Choice of therapy to be used is complex and one must consider the type of tumor, location, cosmetics, recurrence, co morbidity and patient’s preference(11).

It is noted, analyzing the data illustrated in fig. 3, that medical intervention in the first six months of patients

<table>
<thead>
<tr>
<th>Therapeutic method used</th>
<th>No relapses</th>
<th>With relapses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrocautery</td>
<td>305</td>
<td>42</td>
<td>347</td>
</tr>
<tr>
<td>Electrocautery + contact therapy</td>
<td>88</td>
<td>10</td>
<td>98</td>
</tr>
<tr>
<td>Surgical excision</td>
<td>86</td>
<td>5</td>
<td>91</td>
</tr>
<tr>
<td>Contact radiotherapy (Chaoul)</td>
<td>66</td>
<td>14</td>
<td>80</td>
</tr>
<tr>
<td>Electrocautery + topical chemotherapy</td>
<td>6</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Topical chemotherapy</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>553</strong></td>
<td><strong>81</strong></td>
<td><strong>634</strong></td>
</tr>
</tbody>
</table>

Figure 3 - The evolution of basal cell carcinomas by relapses during the presentation to the doctor
with basal cell carcinomas, indicates a recurrence rate of 1.30%. If this is done in the first year, it is 2.80%. Their percentage is growing to 8% if they did not intervene until two years after the appearance of the tumor, and in five years is 10.7%.

**CONCLUSIONS**

- From the study of the clinical forms it was noted the predominance of nodulo ulcerative form. Second in order of frequency is the nodular pearl type. A low incidence stands at clinical forms of superficial type erythematous, terebrant and sclerodermiform.

- When seeing the doctor after tumor development it is very important in the incidence of relapses. Delays may have irreversible consequences in the further evolution of the tumor and thus finding optimal therapies to treat them successfully.

- Based on our statistics and tracking a large number of cases, we consider that the safest method is surgical therapy consisting of tumor excision. Electrocautery is an effective method, but with contact therapy (Chaoul) it allows healing with low rates of recurrence.

**REFERENCES**


