”OVIDIUS“ UNIVERSITY OF CONSTANȚA
DOCTORAL SCHOOL OF APPLIED SCIENCES
FUNDAMENTAL AREA: BIOLOGY

PhD THESIS SUMMARY

CONTRIBUTIONS ON THE BASAL-CELL CARCINOMA INVESTIGATION BY ADVANCED PHYSICO-BIOCHEMICAL STUDIES

SCIENTIFIC COORDINATOR:
Prof. Univ. Dr. SRI Natalia Roşoiu
Full Member of the Academy of Romanian Scientists

PhD CANDIDATE:
Eugen Leonard Gurgaş

CONSTANTA
2018

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Keywords: Basal cell carcinoma, electron-microscopy, excision, relapse

OBJECTIVES AND PURPOSE OF THE WORK

Specialty literature abounds in information on basal cell carcinoma, the most common skin cancer. Even though it almost never metastasizes, there is a risk that it may to relapse in the very place where it has developed before. Moreover, if the treatment of this seemingly harmless cancer is neglected, the lesions can disfigure the areas where they appear.

My personal study was carried out from the observation sheets and from the histopathological examination sheets of 140 patients who requested consultation and treatment during 1 January 2017 - 31 December 2017.

The obtained statistical data allowed to draw conclusions about the morphoclinic and histopathology of the carcinomas. A series of biochemical and statistical indicators can be analyzed, their correlation leading to one of the objectives of this research topic, the understanding of their emergence and subsequent development.

Overall, this paper addresses a public health issue; the evolution and prognosis of this condition are decisively influenced by a physician by knowing the lesions, the onset of malignancy and the appropriate treatment.

This study has pursued several objectives of particular importance:

1. Extraction of some biochemical parameters, HDL cholesterol, LDL cholesterol, total cholesterol, triglycerides, total lipids, alanine aminotransferase (ALAT), albumin, alpha 1 glutamine, alpha 2 globulin, beta globulin, gamma globulin, albumin / immunoglobulins, serum, VSH in order to establish correlations between them
2. Through electron microscopic investigations on a basal cell epithelium, we sought to determine the characteristics of pigmented nodular basal cell epitheliomas, noting the existence of many globular formations at the periphery of the tumor, which in turn can give some information about the motives of slow evolution in their years .
3. I studied the effects of a particular topical treatment.
4. By successive correlations between indicators of patients' background, sexes, topographic locations, age, clinical, histological, and macroscopic dimensions of basal cell carcinomas, we studied the effect they have on their evolution.
5. Carcinoma dimensions helped me to observe some histopathological and morphoclinic features in the cephalic end.
6. Correlations between the observed biochemical markers in patients with basal cell carcinoma.

The results of this study can be considered as a redistribution of the statistical data, a reassessment of the favorable factors, the emphasis on new correlations and, last but not least, the role of drawing attention to the importance of prophylaxis and correct therapeutic behavior to ensure a prognosis favorable to the patient.

PART II - PERSONAL CONTRIBUTIONS

INTRODUCTION

The retrospective study was carried out in the Clinical Department of Dermatovenerology at the County Emergency Clinical Hospital "Sf. Apostol Andrei" in Constanţa, between 01.01.2017 - 31.12.2017. The research included a total of 140 patients treated in the clinic and having basal cell epitheliomas. We have analyzed the following indicators: age, sex, patient origin (urban / rural), tumor location (topographic and cephalic end), carcinoma dimensions, clinical and histological form of BCC, discharge status and therapeutic or treatment methods, biochemical clinical values.

This cancerous condition has long been a major concern for many clinicians and researchers. In recent years, numerous scientific research papers have focused on the analysis of immunological, biochemical, ultrastructural, molecular and genetic factors that govern the clinical aspects of the tumor.

A better understanding of basal cell carcinoma biology, the most common human cancers, can lead to the discovery of new treatment methods and improved prognosis. In addition, knowing this type of carcinoma as a possible deviation in the cell cycle can bring important elements for finding new therapeutic methods. Because of its superficial position, being easy to approach, basal cell carcinoma benefits from the latest conquests in this area, while offering an ample study material.

CHAPTER 3 - MATERIALS AND METHODS

The data were entered electronically into the database using Microsoft Access and their processing was performed using Microsoft Excel. We used the Chi-square test to determine the statistical significance of association between the types of indicators pursued in the research, the threshold of statistical significance chosen is $p \leq 0.05$, the t test and the Anova test.

The electron microscopic study was performed on a number of 35 sections of 50-100 nm of a clinically diagnosed tumor cell "Pigmented, nodular basal cell carcinoma" and a number of 28 normal skin sections located at the periphery of the tumor. The magnitude of the images varied between 4800 x and 49,000 x. The study of clinical biochemical values was performed using the Prestige 24i automatic analyzer, the reagents and related protocols.

Sample preparation: For the preparation of the samples, the modified Jastrow method was used: Immersion of samples in 2.5% glutaraldehyde solution buffered with 2% paraffolmaldehyde in 0.1 M sodium phosphate buffer (Sorensenbuffer) pH 7.2-7.4. Sample storage overnight at + 4 ° C. Washing 3x15 min. In 0.1 M Sorensen sodium phosphate buffer + 0.1 M sucrose. Postfixation 90 minutes in 2% osmium in TF, pH 7.4, + 4 ° C. Washing dec3x15 min. In 0.1M sodium phosphate buffer (Sorensen), pH 7.4. Dehydration 2x15 min. With 50% acetone (in distilled water). Overnight contrast in acetone 70% + 0.5% uranilacetate + 1% phosphorus acid at + 4 ° C.

Dehydration: 2 x 15 min. with 80% acetone. 2 x 15 min. with 90% acetone. 2 x 15 min. with 96% acetone. 3 x 20 min. with 100% acetone. 2 x 15 min. with propylene oxide. 30 min 2: 1 propylene oxide mixture Epon. 30 min 1: 1 propylene oxide mixture Epon. 30 min 1: 2 propylene oxide mixture Epon. Impregnation with Epon overnight at + 4 ° C. Taking the sample and placing it in the fresh Epon. Incubation for 48 hours at 60 ° C for polymerization. Sections at 50-100 nm. Washing the sections.

Post contrasting: 10 min. in the soil. 8% uranilacetate. 5 min. in the soil. 0.7% ledcitrate + 0.9% sodium citrate. Drying of the grid 15 min. and examination.

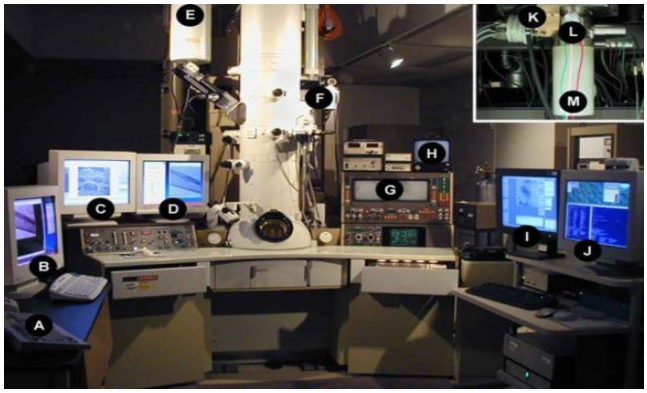


Figure 2. *Electronic microscope*

The electronic microscope used to obtain photographic images is an electronic transmission microscope in the Faculty of Medicine, Constanţa (pictured below). Key technical features: Resolution resolution 210-10 m. Zoom range: 35 - 1 200 000. Diffraction: 18 - 4300 mm, with ultra-high vacuum and crimioscopy options. As an accessory, the 15kV IMV D-31model 15kV UPS was used for protection in the event of network voltage drops purchased in 2000 (figure below).

CHAPTER 4 - CASE STUDIES

4.1 Correlations between the parameters of biochemical investigations and the evolution of basal cell epitheliomas. (L. Gurgas, Popescu, Hangan, Chirila & Rosoiu, 2017)

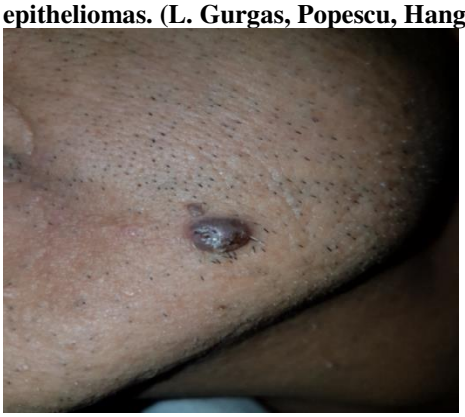


***Figure** 3The supramandibular tumor formation*

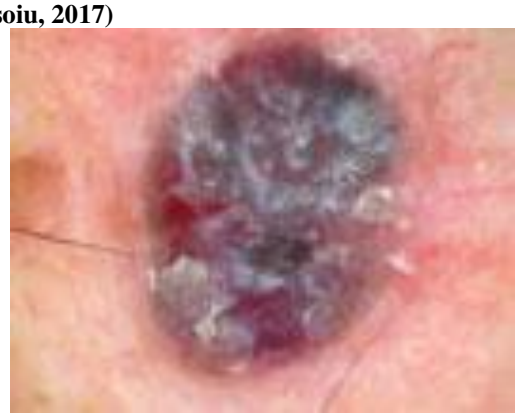


***Figure 4.** Pigmented basal cell epithelium*

In the experiment, we randomly selected a patient diagnosed with basal cell carcinoma, which we selected to be etiopathogenically, clinically and paraclinically analyzed from the group of patients studied. It is noted that the formation had dimensions of 1/0, 8cm, with a height of 7mm. The color of the tumor was dark brown, being pierced by two small ulcers (Figure 3). **Medical history**: The patient claims that skin lesions have appeared in complete health, about 3 years ago, but have increased in volume over the last 2 months. **Investigation**: The dermatoscopic analysis of the lesion was performed and, after excision, it was sent to the electronic microscopy laboratory to prepare the bioptical parts and make specific photos. Biological samples were collected for haematological and biochemical investigations.

Results

The dermatoscopic examination showed red areas and fine capillaries. As for pigmentation, these signs are obvious, especially gray-blue globules of different sizes.

Diagnosis of "pigmented basal cell carcinoma" (Figure 4). Biochemical and haematological investigations performed one day before the excision (1 result) and 30 days (2 results) after the intervention.

Table 1. Biochemical and haematological investigations performed before and after the excision

Analysis name	Results (1)	Results (2)	Reference range
HDL Cholesterol	↑ 67 mg/dL	58 mg/dL	> = 40-60 mg/dL
LDL Cholesterol	147 mg/dL ↑	126 mg/dL	< 129 mg/dL
Total cholesterol	217 mg/dL ↑	198 mg/dL	< 200 mg/dL
Trigliceride	94 mg/dL	89 mg/dL	< 150 mg/dL
Total lipids	672 mg/dL	588 mg/dL	400-700 mg/dL
Alaninaminotransferaza (ALAT)	↑ 47 U/L	38 U/L	< 41 U/L
Aspartataminotransferaza (AST)	31 U/L	30 U/L	< 40 U/L
Serum creatinine	0.92 mg/dL	0, 88mg/dL	< 1.2 mg/dL
Albumin	46.8% ↓	62%	52-68%
Alpha 1 globulin	2.5%	2.8%	2-5%.
Alpha 2 globulin	15.8% ↑	12.6%	6.6-13.5%
Beta globulins	13.6%	12.8%	8.5-14.5%
Gamma globulins	21.3% ↑	20.2%	11-21%

Albumin/immunoglobulins	0.88 ↓	1.28	1.2-2.23
Total protein	7.3 g/dL	7.8 g/dL	6.6-8.7 g/dL
Serum glucose	↑ 113 mg/dL	95 mg/dL	60-99 mg/dL
Serum urea	30 mg/dL	33 mg/dL	< 49 mg/dL
VSH	18 mm/h	16 mm/h	< 20 mm/h

LDL - Low density lipoproteins
HDL - High density lipoproteins
VSH – Erythrocyte sedimentation rate

Discussions

From laboratory analysis (Table I), the patient shows changes in cholesterol metabolism (total and LDL cholesterol), changes in liver function (ALT increase), changes in serum protein (an increase in alpha 2 and albumin and a decrease in the ratio gamma globulin / immunoglobulin). At the same time, there is an increase in blood glucose, which confirms the existence of dismetabolic changes. The same analysis carried out 30 days after the excision intervention shows an improvement in the results of the investigation, all of them in the physiological parameters. The main question may be raised by ACTH metabolic regulation. This hormone controls the development and hormonal secretion of the adrenal cortex. By stimulating the fascicular area of the adrenal cortex, the synthesis and secretion of glucocorticoids (cortisol and corticosterone) is activated.

The secondary properties of ACTH are due to the metabolic effects of glucocorticoid hormones, triggering glucose, protein and lipid metabolism. The regulation of ACTH secretion is achieved, neuro-humoral, with the participation of the hypothalamus. The main factor regulating humoral is the blood concentration of glucocorticoid hormones, especially cortisol. Under their influence, ACTH secretion falls through a negative reaction mechanism, namely, the increase in the decrease of glucocorticoids (Singh, Singh, Ranganathan, & Padinhateeri, 2012).

However, a hepatic, hypolipidemic, hypoglycemic diet rich in vitamins and natural minerals is recommended for the patient, monitoring monthly changes in biochemical investigations.

Conclusions

Surgical excision of cutaneous tumors is a radical, optimal treatment method, but requires prior dermatoscopic investigations, then histopathological investigations, while monitoring standard biological parameters. Maintaining optimal immunological status by relying on confidence in medical, surgical or medical intervention associated with resting hours, balanced dieting, and avoidance of exposure to sun radiation can contribute to the successful prophylaxis or treatment of cutaneous basal cell epitheliomas as well as improving biological status of patients.

4.2 Study on microscopic images of a basal cell epithelium (Gurgas, Popescu, Hangan, Moroianu, & Rosoiu, 2018)

The present study analyzes the electron microscopic structure of a cutaneous tumor formation, which highlights the characteristic features of nodular pigmented basal cell epithelium.

Results

Intercellular spaces (Figure 6) are strongly dilated and globular formations (FG) are observed in the stromal layer. The cytolytic changes are present in some parts of the tumor cells. Pinocitotic vesicles (VP) with or without fine granular amorphous content (Figure 7) and preemelosome-like bodies are close to the cell membrane of neoplastic keratinocytes. The distribution and morphology of both membrane structures suggests interrelation. Melanosomes (MZ), melanocyte (M) and transparent amorphous material from the stroma are indicated.

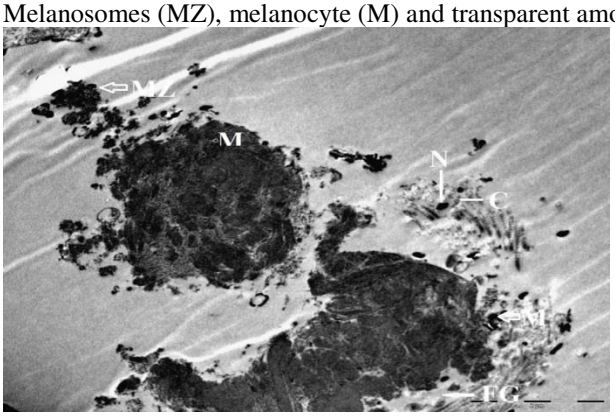


Figure 6. *Magnitude 18500 x 1*

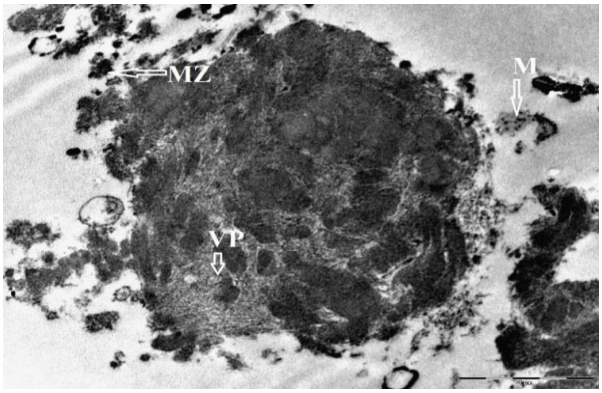


Figure 7. *Magnitude 23000 x 1*

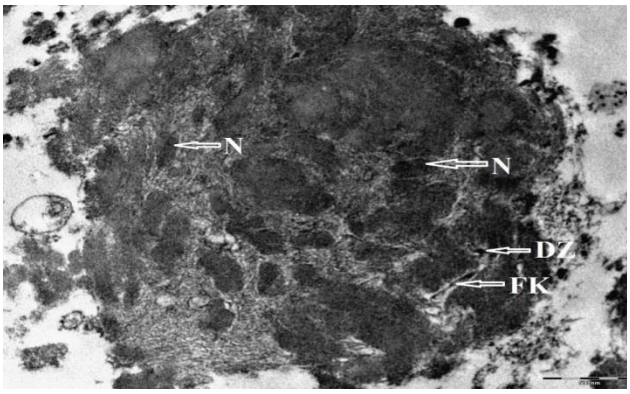


***Figure 8**. Magnitude 30000 x 1*

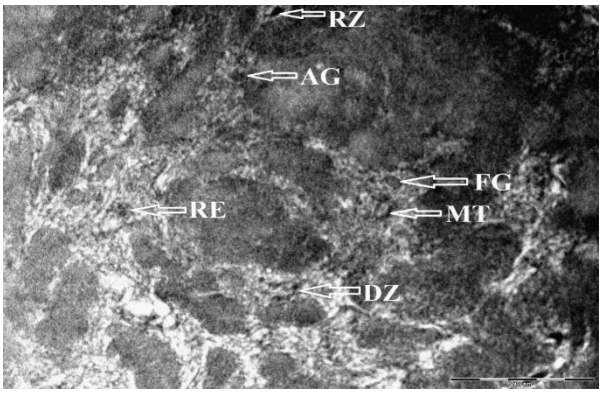


***Figure 9**. Magnitude 49000x 1*

At this magnitude we can easily distinguish the nucleus (N), the keratinocytes keratinocytes (FK) and the desmosomes (DZ) seen between melanocyte and keratinocytes (Figure 8). Melanocyte is rich in endoplasmic reticulum (RE), ribosomes (RZ), mitochondria (MT), globular formations (FG) and tubular desmosomes (DZ).

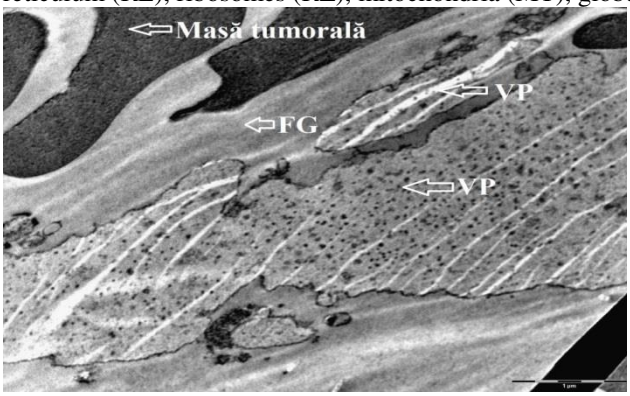


***Figure 10**. Magnitude 23000 x 1*

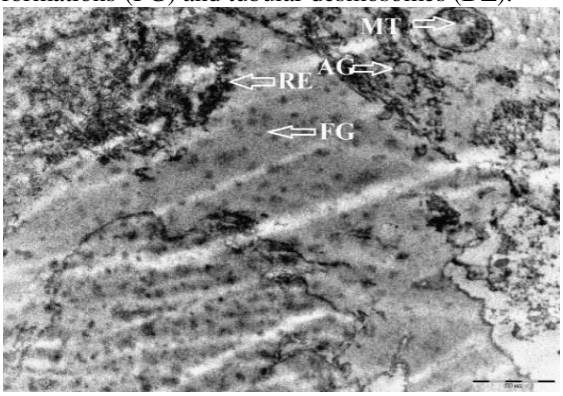


***Figure 11**. Magnitude 30000 x 1*

Melanocyte (Figure 9) is rich in endoplasmic reticulum (RE), ribosomes (RZ), mitochondria (MT), globular formations (FG) and tubular desmosomes (DZ). The peripheral tumor region sections contain predominantly amorphous (FG) globular formations. The sections of the tumor peripheral region contain predominantly amorphous globular formations (FG). The sections of the free cutaneous area (Figure 10), located on the periphery of the tumor, reveal the normal electronic microscopic structure. Pinocitotic vesicles (VP) with or without granular fine amorphous content and preemelosome-like bodies are close to the keratinocyte cell membrane. The sections of the area located at the periphery of the tumor (Figure 11) show endoplasmic reticulum (RE), mitochondria (MT) and globular formations (FG) with normal electronic microscopic structure.

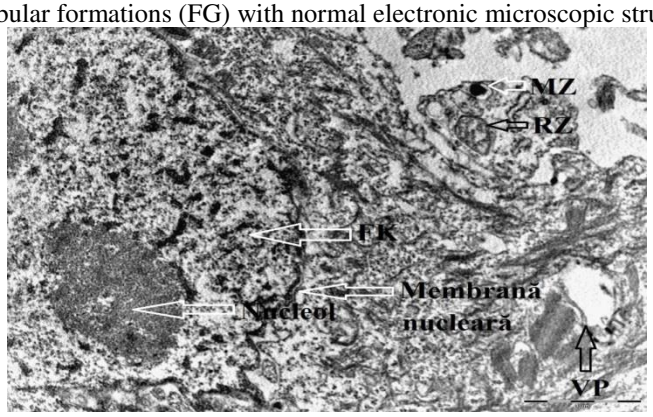


***Figure 12**. Magnitude 18500 x 1*

The sections of the free cutaneous area located on the periphery of the tumor reveal keratinocytes with normal electron microscopic structure. The sections of the free cutaneous area (Figure 12), located on the periphery of the tumor, reveal keratinocytes (FK), nucleus (N), ribosomes (RZ) with normal electron microscopic structure.

Discussions

On the sections made from the deep center of the tumor (Figure 5, Figure 6, Figure 7, Figure 8, Figure 9), the electron microscopic changes specific to the basal cell epithelium are highlighted: a) tumor cells located at the periphery of the tumor are ordered in the palisade with nuclei (N) large ovalari with a small cytoplasm (C); have rare nuclear monstrosities and cell divisions; b) melanocytes (M) are large, rich in melanosomes (MZ) and melanogenic pigment, especially disposed at the periphery of the tumor; c) the cells are disposed in tumor masses, separated from globular formations (FGs) composed of stroma composed of amorphous material (18); d) visible ultramicroscopic formations are: mitochondria (MT), endoplasmic reticulum (RE), keratin (FK), melanosomes (MZ), desmosomes (DZ), ribosomes (RZ)).

Conclusions

The microscopic analysis of the tumor formation reveals the characteristics of pigmented nodular basal cell epithelium. In addition, it notes the systematic existence of numerous globular formations at the periphery of the tumor, consisting of an amorphous substance. These formations limit the peripheral extension of the tumor by junctioning the junction with normal skin tissue, which explains the slow evolution in years. This conclusion can be applied experimentally by peripheral injection of cutaneous tumors caused by laboratory animals with amorphous substances that can isolate tumor formations from free tissues and at the same time produce their involution by reducing blood intake with gradual ischemia.

4.3 Skin reaction to imiquimod self-treatment for postmenopausal women. Case study (Leonard Gurgas et al., 2017)

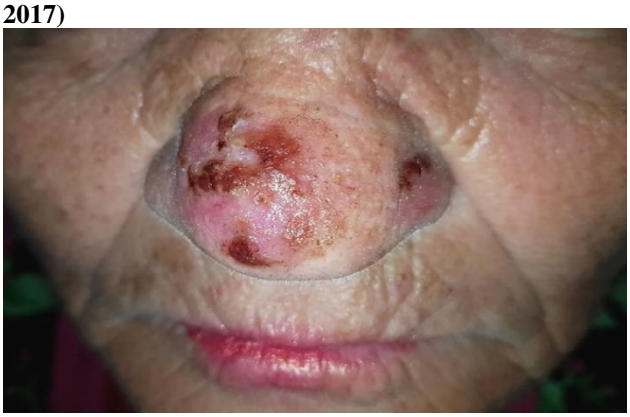


Figure 13. Previous view of the lesion *(personal collection)*

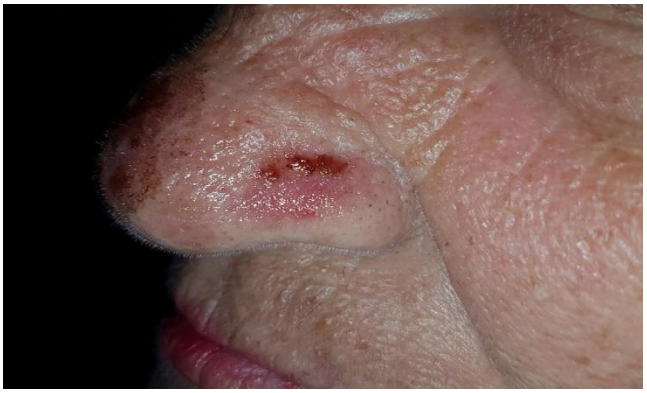


Figure 14. Side view lesion *(personal collection)*

66-year-old woman in postmenopause. The patient presented an erythematous plaque with serous and blood-borne secretions at the surface and a brownish-red haemorrhagic crust. It was located on the left wing. The patient also reported a localized burn sensation (Figures 13 and 14). The first signs of the lesion occurred seven years earlier, having the appearance of two small erythematous plaques. In the last two years, without any medical intervention, the lesion has widened. One week before presenting to the medical cabinet, the patient used three consecutive days, before bedtime, imiquimod topic. After the second day, he noticed an intense lesion of the lesions and an erosion after scratching. After the third day of self-medication, the patient decides to consult the doctor (Figure 15). The patient did not report relevant family history and medical history of high blood pressure and bronchial asthma, both under treatment.

For elevated blood pressure, the patient followed the treatment with nebovolol 5 mg once daily, indapamide 1.5 mg once daily and theophylline 350 mg once daily. At physical examination the blood pressure was 150/100 mmHg, indicating insufficient blood pressure control. The lower eyelid of the left eye, a well-defined limb, inflamed with hyperacidular secretion and moderate local pain. Other physical examination results were normal. The patient followed a three-day treatment with dexamethasone, 4 mg / 1 ml, 1 ml once a day and local treatment with local treatment with betamethasone / gentamicin twice a day. Upon discharge, the patient has two macular lesions, one 0.5 cm in diameter and the other 2 cm / 1.5 cm. The margins were irregular, poorly delimited, covered with serous and haemorrhagic secretion, with a reddish-brown haemorrhagic crust in the periphery. Perilesionally, there was a pearl look (Figure 16).

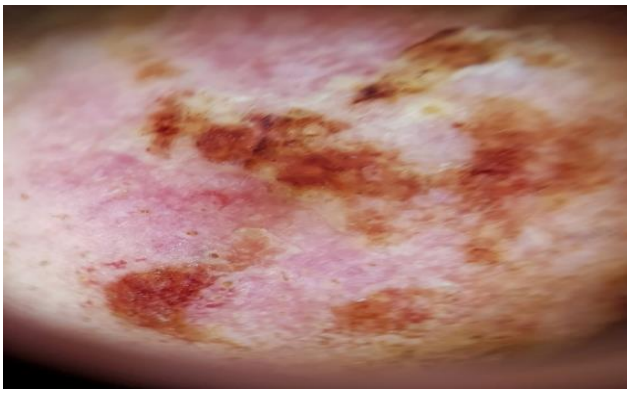


Figure 15. Lesion details *(personal collection)*

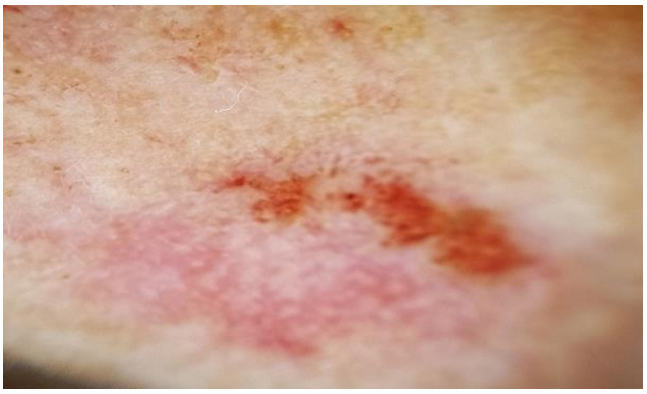


Figure 16. Discharge presentation *(pers collection)*

Discussions

Imiquimod is an approved synthetic imidazoquinoline for the treatment of actinic keratoses (Butler, Parekh, & Lenis, 2009). Due to the shorter healing time through surgery, it will prevail over topical treatment (Kagy & Amonette, 2000). Nasal nodal basal cell carcinomas, occurring mainly in postmenopausal women, may be more resistant to imiquimod treatment than superficial and nodular treatments elsewhere in the skin. A local inflammatory reaction associated with imiquimod in the treatment of nasal BCC limits its utility as adjunctive therapy (Butler et al., 2009). If they self-administer, Imiquimod may be a cause of more severe lesions, with undesirable complications and possibly, as in this case, hospitalizations.

Conclusion

The use of imiquimod in postmenopausal women without the doctor's advice and overdose presents a certain risk for skin lesions that require immediate medical treatment.

CHAPTER 5 - RESULTS AND DISCUSSIONS

5.1 Distribution of cases by gender

Of the 140 cases, 44 (31%) were women, and 96 (69%) were males (Figure 20).

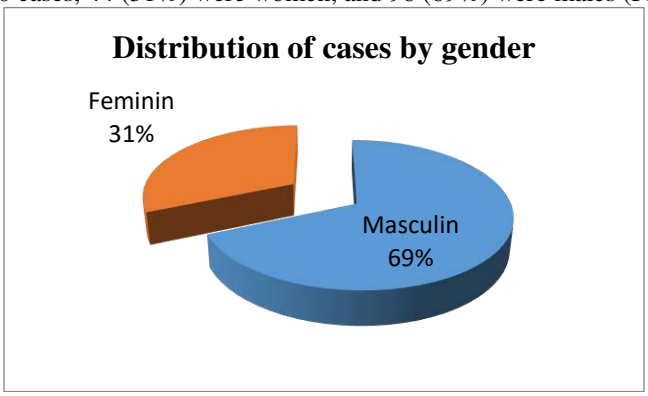


Figure 20. *Distribution of cases by gender*

Thus, in the cases studied, there is a predominance of male cases that could be explained by the demographic structure (in rural areas men are predominantly present in agricultural labor compared to women). The higher incidence of BCC in men may be due to their prolonged outdoor activities under ultraviolet rays (farmers, sailors, fishermen).

5.2 Distribution of BCC by age and social status of the patients studied

As can be seen from Figure 21, which shows the distribution of cases by age groups, baseline cellularity increases with age, with the incidence being highest for age groups of 61-80 years. The following frequency groups are the 80-90 years of age, which is explained by the aging of the inhabitants.

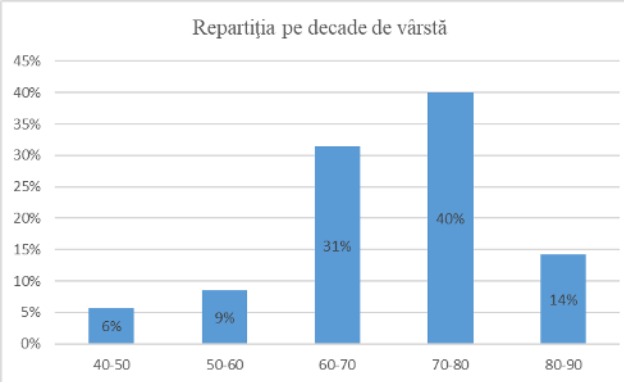


Figure 21. *Age distribution over decades*

Figure 22. *Social status*

This study does not show a very high incidence in the 40-60 age group. It can be seen from this study (Figure 22) that a very large majority of patients are retired, 86% (120 patients) than those still employed, 14% (20 patients). These observations can be explained on the one hand by the phenomenon of exposure to sunlight and X-rays, risk factors for basal cell carcinomas, but also by weakening of local and general immunity in old age.

5.4 Distribution of BCC according to the patient's background

As expected, the frequency of C. CB cases is higher in rural than urban; of the 140 cases, 51% came from the rural area and 49% from the urban environment (Figure 23). The increased incidence of basal cell epitheliomas in rural areas is based on several causes: predominantly sunny areas; professions involving both long-term exposure to sun rays (farmers, mechanics) and frequent exposures to small trauma; the way leisure time (fishing, gardening) and the type of clothing are carried out.

In fact, the actual incidence in rural areas is higher because more than 50% of those living in the urban area have spent the first part of their life in the countryside, so that around the age of 60, a BCC.

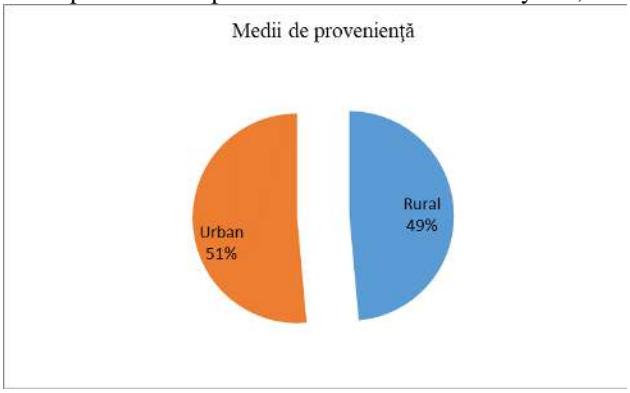


Figure 23. *Environments of origin*

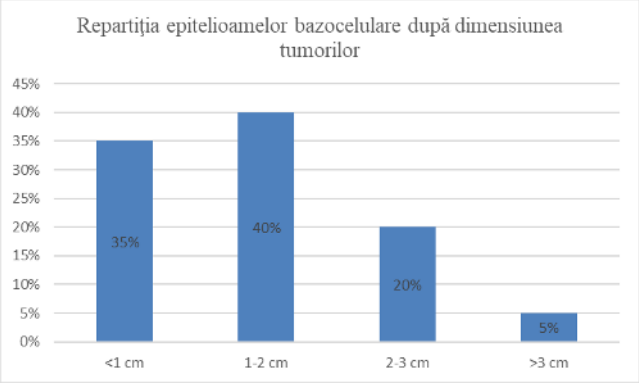


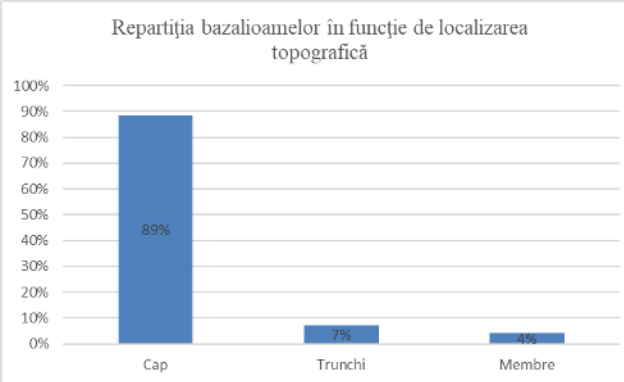
Figure 24. *Tumor size*

5.5 BCC distribution by tumor size

The results are shown in Figure 24 below. It is noted that most patients have large tumor formations between 1 cm and 2 cm. Of the patients, 35% require consultation and treatment for tumors up to 1cm. A rather small percentage is presented by patients who have had a doctor with tumors exceeding 3 cm.

5.11 BCC distribution according to topographic and cephalic location

Analyzing this indicator (figure 33) one can find a predominance of BCC at head level - 124 cases out of a total of 140, representing approx. 89%. The remaining 7% and 4% are in the chest and limb region respectively. The results of the research are consistent with the data from the specialty studies. The development of carcinomas in the cephalic extremity is due to long-term exposure to sunlight and high concentrations of polysemic follicles at this level. It is known that BCC is located on the exposure areas, especially in the upper 2/3 of the upper and lower chest area (Tatu, 2010).



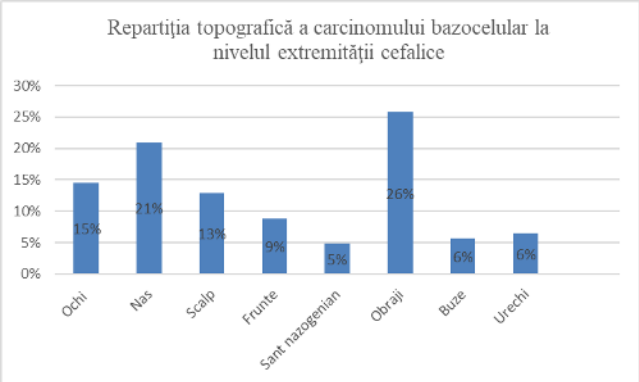


Figure 33. *Topographic location* ***Figure 34.*** *In the cephalic end*

Intermittent exposure to sunlight is a significant risk factor. The fact that these carcinomas develop frequently on the face, especially on the nose, suggests that there are specific skin areas containing a large number of target cells, progenitor cells that play an important role (Bolognia J. L., 2008). It has been observed from Figure 34 that more than 85% of all basal cell carcinomas occur at head level; 21% occur on the nose. They are rarely on the back of their hands, although these areas receive a significant amount of solar radiation. Tumors also appear in sun-protected areas such as genitals and breasts (Habif, 2010).

The regions with the highest incidence, according to specialized studies for localization of carcinomas on the extremity of the head, are nose, eyes, eyes. This is also observed in the present study, with the maximum incidence being at cheeks (26%), followed by nose (21%) and eye (15%). At the lip level there is a lower percentage of basal cells (6%).

5.14 Topographic distribution of BCC according to the patient's background Head localizations are more common (but not significant) in rural areas, accounting for about 45% of total carcinoma than urban (43%).

Table 7. Distribution of BCC by patient's background

Location	Number of cases urban	Percent (%)	Number of cases rural	Percent (%)	Total
Head	61	43%	63	45%	115
Torso	2	1%	8	6%	13
Limbs	5	4%	1	1%	12
Total	68	48%	72	52%	140

And carcinoids in rural areas (6%) are more common than in the trunk, as evidenced by the influence of traumas, skin irritation and possible antecedents of cumulative factors (arsenic, X-rays). The difference is in the member states where 4% are urban and 1% in rural areas, probably reflecting the etiopathogenic intervention of predisposing factors such as trauma, prolonged skin irritation and the possibility of a history of cumulative iatrogenic factors (arsenic, rays X). The predominant role of UV solar radiation in the etiology of C. CB is supported by the consistent observation that the clinical signs of chronic sun damage to the skin are the strongest predictors of C.B.C (Walker, 2008). Common trunk localizations are those areas that are not in contact with the sun's rays, this being the influence of a history of frequent trauma, pre-existing lesions, infectious diseases of the skin, etc. It can be assumed that rural predominance is explained by cumulative risk factors: increased sunlight, repeated micro-traumas.

5.23 BCC distribution by size and topographic location

The highest incidence of tumors is between 1-2 cm (Figure 51), 38%, followed by a 35% comparative incidence of less than 1 cm in size.

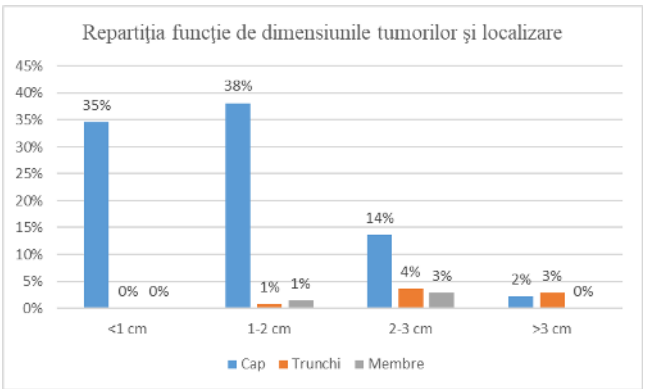


***Figure 51. BCC** Dimensions and topographic location*

5.27 Gender distribution of clinical morphoclinical and histopathological BCC forms

In figure 61 the nodulo-lytic form is the first place of incidence for males, 21%. For women the weight is 16%. Pearly nodular form has 17% for men, and for women it is much lower (7%).

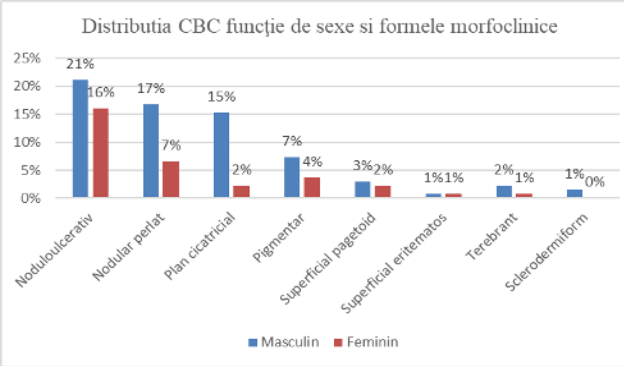


***Figure 61.** Clinical forms and genders*

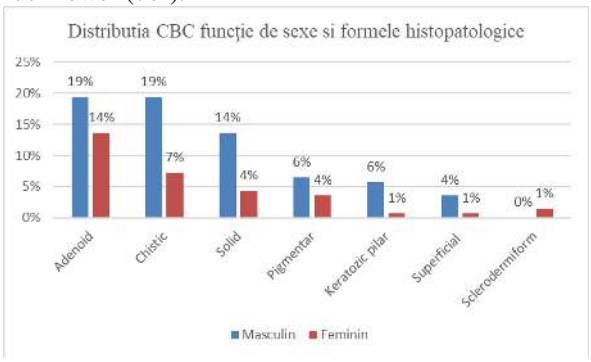


***Figure 62.** Histological forms and genders*

The shape of the scar tissue has a significant weight in men, 15%, but very low in women (2%). Figure 62 shows that the percentage of carcinoma men is superior to that of women for all histological forms. Adenoid and cystic forms have the highest incidences and equal weights of 19%. And in women, these forms have the largest but unequal weights of 14% and 7%, respectively. Solid form is also significant in male, 14% and much reduced in females, 4%. The pigmentary form shows comparative weights between women and men of 6% and 4%, respectively. The shape of the scar tissue has a significant weight in men, 15%, but very low in women (2%). Figure 62 shows that the percentage of carcinoma men is superior to that of women for all histological forms. Adenoid and cystic forms have the highest incidences and equal weights of 19%. And in women, these forms have the largest but unequal weights of 14% and 7%, respectively. Solid form is also significant in male, 14% and much reduced in females, 4%. The pigmentary form shows comparative weights between women and men of 6% and 4%, respectively.

5.34 Distribution of morphoclinic forms according to topographic location

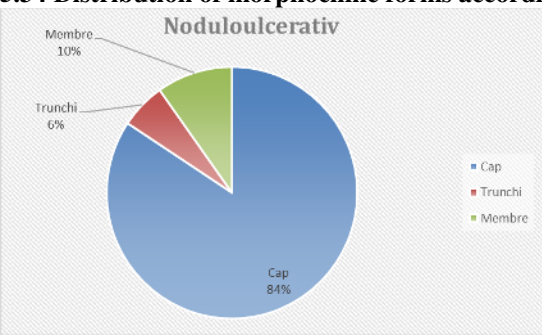


***Figure 82**. Nodulouscerative clinical form and localization*

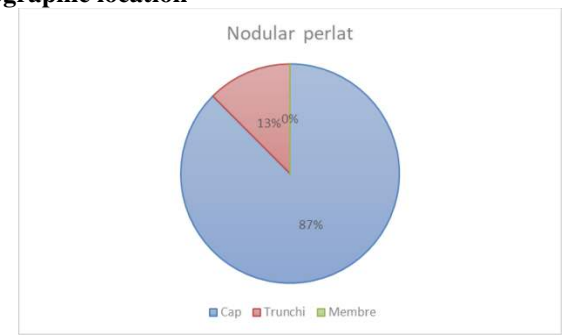


***Figure 83**. The pearl nodular clinical form and localization*

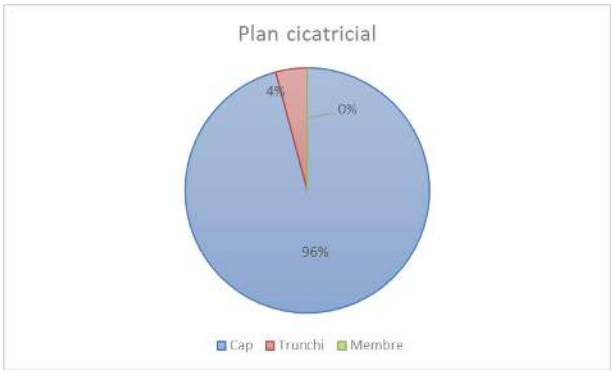


Figure 84. *Clinical form of plan scar and localization*

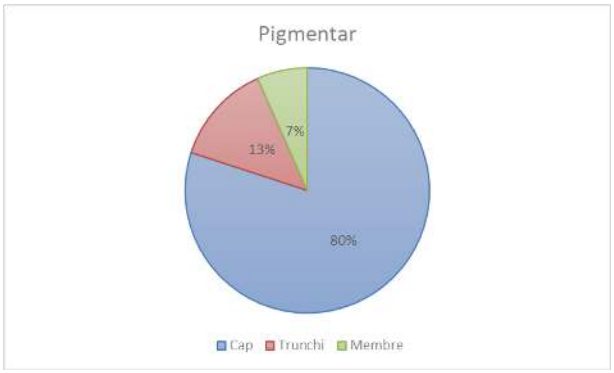


Figure 85. *Clinical pigmentation form and localization*

The nodulouscerative form (figure 82) shows at head level a maximum distribution of 84%. The trunk follows, with 10% and limbs 6%. The pearly nodular form at the head has 87%, trunk 13% (Figure 83). There are no cases in the limbs. The scar shape (Figure 84) shows 96% of the head and the remaining 4% of the trunk. The pigmentary form (Figure 85) has 80% weight and the rest of the percent is broken down by trunk and limbs, 13% and 7%, respectively.

5.35 Distribution of histopathology according to the topographic location of BCC

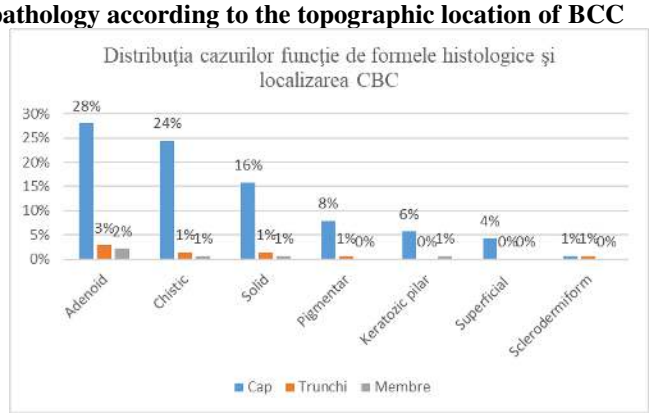


Figure 86. *Histological forms and topographic location*

The most significant percentages (figure 86) are seen in the head, 28% in the adenoid form, 24% in the cystic, 16% in the solid form. And pigmentary form is important in the distribution analysis, with 8% of total carcinoma.

5.40 Distribution of therapeutic methods

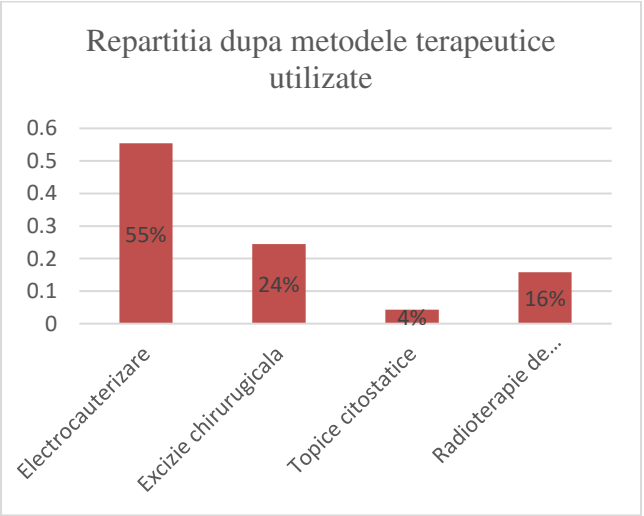


Figure 117. *Treatment methods in BCC*

It can be noted (Figure 117) that for almost half of the patients 55% electrocautery was used. This method was chosen for small-scale superficial basal cell carcinomas, as this leads to targeted tumor eradication. Disadvantages can be slow healing and subsequent unsightly traces. The second place as treatment used, in frequency order, 24% of the cases is the surgical excision method. Contact radiotherapy has a percentage of 16% and cytostatic topics are the last, representing 4%.

5.46 Distribution of treatments according to BCC size

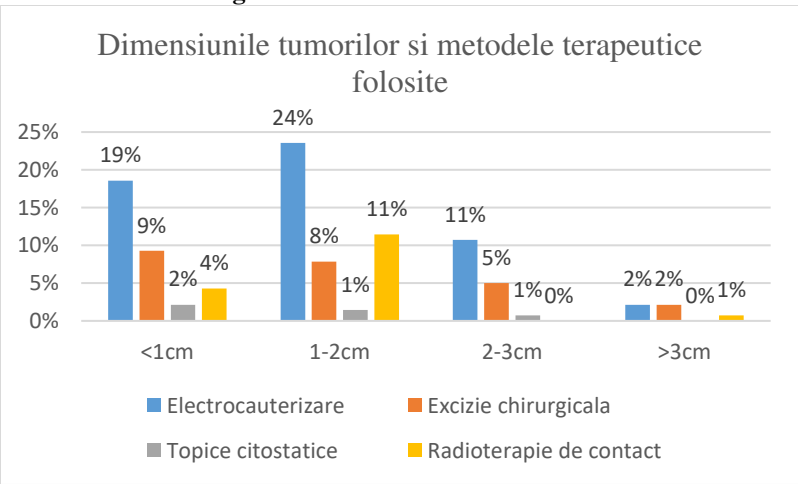


Figure 126. *Tumor dimensions and BCC treatment*

A very large percentage, 24%, has this treatment (Figure 126) for carcinoames of 1-2 cm in size, but also for sizes smaller than 1 cm.

5.50 Patient analysis based on condition at discharge

he chart below (Figure 143) shows that of the total of 140 patients, 15 were declared healed (11%) and the remaining 125 showed an improvement in disease progression (89%).

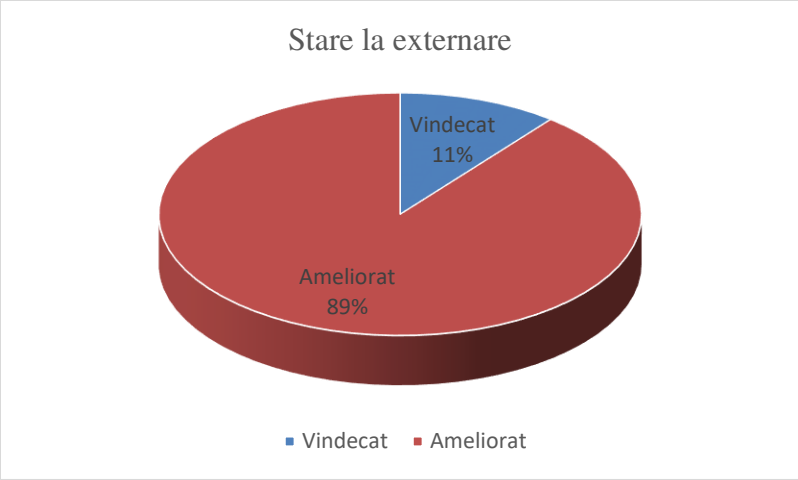


Figure 143. *Condition of patients at discharge*

Tabelul 18. Markeri Biochimici

ALT	**AST**	**Bazofil**	**Conc med Hb/eritrocit**	**Creatinina**	**Eozinofil**	**Hematocrit**	**Hb**
8-40	8-33	0.2-2%	32-36	0.6-1.2	0-6%	42-52b; 37-47f	12-16
7	12	0.03	33.5	0.70	3.00	36.7	12.5
8	11	0.01	33.2	0.67	3.20	36.8	12.2
7	10	0.03	33.2	0.66	3.30	36.5	12.2
7	12	0.03	33.5	0.70	3.00	36.7	12.5
10	12	0.02	33.5	0.70	3.00	37.5	13.6

ALT	AST	Bazofil	Conc med Hb/eritrocit	Creatinina	Eozinofil	Hematocrit	Hb
8	11	0.02	33.6	0.74	0.10	45.9	15.4
18	22	0.02	33.7	0.74	0.00	40.7	13.7
8	11	0.03	33.2	0.67	3.20	36.8	12.2
9	11	0.03	33.3	0.70	3.10	36.7	13.2
8	12	0.02	33.2	0.66	3.10	36.8	12.4
8	11	0.03	33.2	0.67	3.20	36.8	12.2
7	12	0.03	33.5	0.70	3.00	36.7	12.5
8	12	0.02	33.1	0.66	3.10	36.7	12.2
47	26	0.02	34.9	0.86	3.00	43.5	15.2
8	12	0.03	33.3	0.67	3.20	36.8	12.3
7	12	0.03	33.2	0.66	3.30	36.5	12.2
8	11	0.02	33.3	0.69	3.20	36.6	13.0
9	11	0.02	33.3	0.70	3.20	36.7	13.2
35	22	0.02	33.7	0.74	0.00	40.7	13.7
10	11	0.02	33.5	0.70	3.00	37.5	13.6
7	10	0.03	33.5	0.70	3.00	36.7	12.5
9	11	0.02	33.3	0.70	3.20	36.7	13.2
7	12	0.03	33.5	0.70	3.00	36.7	12.5
8	12	0.02	33.6	0.70	3.00	36.6	12.5
30	22	0.02	33.7	0.74	0.00	40.7	13.7
7	11	0.03	33.5	0.70	3.00	36.7	12.5
7	10	0.03	33.5	0.70	3.00	36.7	12.5
7	11	0.03	33.5	0.70	3.00	36.7	12.5
7	12	0.03	33.5	0.70	3.00	36.7	12.5
7	11	0.03	33.2	0.66	3.30	36.5	12.2
8	10	0.02	33.2	0.66	3.10	36.8	12.4
45	22	0.02	33.7	0.74	0.00	40.7	13.7
7	12	0.03	33.5	0.70	3.00	36.7	12.5
8	12	0.02	33.3	0.69	3.20	36.6	13.0
7	11	0.03	33.5	0.70	3.00	36.7	12.5
6	11	0.01	34.7	0.70	2.04	40.3	13.0
5	10	0.02	34.2	0.74	0.44	43.9	12.6
8	12	0.02	33.7	0.67	1.50	36.8	12.7
9	12	0.01	34.5	0.69	2.31	45.5	13.4
10	12	0.02	34.8	0.70	0.95	38.3	12.6
7	11	0.02	33.7	0.69	0.65	42.0	13.4
30	21	0.02	33.2	0.67	0.32	39.1	12.8
8	12	0.02	33.3	0.69	2.37	42.0	12.3
6	11	0.02	34.4	0.70	0.99	44.0	13.4
8	12	0.03	34.1	0.70	1.36	40.5	12.9
7	10	0.03	34.0	0.70	0.14	37.5	12.7
7	12	0.01	34.5	0.71	0.13	44.4	13.4

ALT	AST	Bazofil	Conc med Hb/eritrocit	Creatinina	Eozinofil	Hematocrit	Hb
5	11	0.01	33.6	0.73	2.12	42.0	12.2
46	25	0.03	33.4	0.74	0.05	45.2	13.2
7	11	0.01	34.8	0.70	1.44	45.6	12.3
8	12	0.02	34.0	0.69	0.53	43.9	13.4
9	12	0.03	34.4	0.73	2.67	44.5	13.4
8	11	0.01	33.6	0.70	0.01	43.0	12.7
45	24	0.01	34.9	0.70	0.80	44.1	13.1
9	11	0.02	33.7	0.67	1.25	41.1	13.4
8	12	0.02	33.2	0.72	2.67	44.5	13.4
7	12	0.02	33.4	0.73	0.51	38.7	13.5
9	11	0.03	33.5	0.74	0.31	39.7	12.8
8	11	0.03	33.2	0.73	1.25	38.4	13.1
16	25	0.01	33.8	0.67	0.59	42.8	13.7
8	12	0.01	34.7	0.74	1.07	40.0	13.0
7	11	0.01	34.6	0.67	3.13	38.0	12.7
6	13	0.03	34.0	0.69	0.94	37.6	13.6
8	10	0.01	33.2	0.69	1.63	39.1	12.7
8	11	0.03	34.4	0.71	3.15	45.4	13.3
6	11	0.01	34.1	0.67	0.02	45.4	13.5
44	20	0.02	34.5	0.69	2.49	40.3	12.4
7	11	0.02	33.9	0.73	2.78	40.6	12.3
7	12	0.01	33.7	0.68	0.59	43.9	13.4
8	12	0.03	33.5	0.73	1.12	42.3	13.3
7	11	0.02	33.9	0.70	0.13	43.9	13.7
7	12	0.01	34.1	0.74	2.73	37.5	13.3
8	11	0.02	34.1	0.70	2.67	43.1	12.5
8	11	0.02	33.7	0.71	1.78	43.2	13.6
9	12	0.03	34.6	0.73	0.27	45.6	12.4
7	12	0.02	33.9	0.66	0.40	39.3	12.3
40	24	0.03	33.2	0.69	3.19	40.2	12.3
7	12	0.01	34.8	0.71	1.81	38.4	12.6
9	10	0.02	33.7	0.71	2.07	45.5	12.5
7	11	0.03	34.7	0.70	1.33	43.3	12.4
9	12	0.02	34.2	0.70	3.07	44.0	13.0
5	12	0.02	33.1	0.70	1.03	37.0	13.5
7	11	0.02	33.4	0.73	3.21	40.8	13.3
47	26	0.01	34.7	0.72	0.26	43.7	12.8
7	11	0.02	34.0	0.74	2.60	43.1	13.3
6	12	0.02	34.1	0.68	2.97	44.8	13.5
8	11	0.03	34.1	0.69	2.56	39.3	12.8
8	12	0.02	33.4	0.71	3.18	39.3	12.7
42	20	0.01	33.3	0.71	2.38	40.1	13.7

ALT	AST	Bazofil	Conc med Hb/eritrocit	Creatinina	Eozinofil	Hematocrit	Hb
10	12	0.02	33.9	0.66	1.13	42.1	12.4
5	12	0.01	34.5	0.69	0.73	41.4	12.8
8	14	0.02	33.5	0.68	1.11	42.6	13.1
7	12	0.03	34.7	0.74	2.56	37.6	13.6
7	13	0.02	33.1	0.73	2.77	36.8	13.3
41	23	0.02	34.4	0.73	2.48	43.1	13.5
8	12	0.01	33.7	0.67	0.79	43.6	12.7
8	11	0.01	33.2	0.70	1.36	38.5	12.6
7	11	0.03	34.8	0.73	2.85	42.1	13.6
6	12	0.03	34.3	0.73	0.05	42.1	12.7
7	11	0.01	34.0	0.69	3.23	37.1	13.3
7	15	0.01	34.4	0.73	1.76	41.1	12.8
14	24	0.01	34.3	0.70	0.71	36.8	13.5
7	12	0.02	34.2	0.74	2.74	37.3	13.0
8	11	0.02	34.3	0.71	2.55	39.3	13.5
7	11	0.03	34.8	0.66	1.76	39.8	13.2
8	11	0.02	33.4	0.67	1.66	44.6	12.6
8	12	0.03	33.8	0.67	2.86	37.6	12.3
7	11	0.02	33.9	0.74	0.96	43.6	13.2
6	11	0.02	34.5	0.71	3.30	43.1	13.0
9	12	0.03	33.8	0.68	0.56	36.9	12.5
7	15	0.03	33.9	0.68	2.93	41.5	12.8
47	25	0.03	34.6	0.67	0.95	41.1	13.0
8	12	0.01	34.3	0.74	0.27	42.1	13.7
8	11	0.01	34.5	0.67	1.23	38.0	12.7
7	12	0.01	33.1	0.69	3.18	45.4	13.5
7	13	0.01	33.8	0.70	2.56	40.5	13.5
8	12	0.03	34.8	0.72	1.24	40.8	12.9
7	11	0.03	34.8	0.67	0.63	42.1	13.3
32	25	0.01	33.4	0.72	1.59	45.7	13.6
7	12	0.01	34.3	0.69	0.77	38.8	12.8
8	10	0.02	33.1	0.72	3.24	38.4	12.6
7	11	0.02	34.1	0.68	2.03	37.2	12.8
8	12	0.03	34.3	0.74	2.43	39.7	13.0
18	24	0.03	33.4	0.69	2.52	41.7	12.3
11	12	0.02	33.4	0.69	0.93	40.2	12.5
8	11	0.03	34.3	0.72	2.89	44.7	13.2
9	11	0.03	33.7	0.72	1.19	45.2	13.0
8	12	0.01	34.1	0.72	1.91	37.4	13.4
7	11	0.02	34.7	0.73	1.39	38.5	12.9
15	21	0.03	33.9	0.69	0.99	44.1	12.7
8	10	0.01	34.5	0.68	2.14	39.9	12.9

ALT	AST	Bazofil	Conc med Hb/eritrocit	Creatinina	Eozinofil	Hematocrit	Hb
7	11	0.03	33.6	0.67	2.22	38.9	12.5
8	14	0.01	34.1	0.70	2.33	43.3	13.0
9	15	0.02	34.5	0.72	1.32	37.3	13.3
5	11	0.02	33.5	0.67	1.90	41.9	12.8
7	12	0.02	33.2	0.67	1.12	45.4	12.3
12	19	0.02	33.1	0.71	2.81	44.8	13.4
9	12	0.02	33.3	0.69	3.28	43.8	13.7
7	12	0.01	33.7	0.73	1.96	37.4	12.5
8	11	0.02	34.8	0.67	3.02	38.7	13.0

Tabelul 19. Markeri hematologici

HEM	LDE	LDT	limfocit	Monocit	Neutrofil	Nr eritrocite	Nr leucocite
27-33	11.5-14.5	15-18	12-24	0-1000	45-80	4.2-5.5	4-8
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.1	13.4	13.7	25.3	0.49	64.2	4.34	7.08
27.9	13.4	13.6	25.3	0.48	64.2	4.41	7.08
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.8	13.8	13.3	20.1	0.50	69.6	4.65	8.01
29.4	13.7	20.0	25.1	0.76	68.2	5.23	11.79
28.9	14.3	11.2	14.6	0.50	79.7	4.74	9.14
28.1	13.4	13.7	25.3	0.49	64.2	4.34	7.08
29.0	13.5	13.6	25.3	0.50	66.1	4.56	7.09
28.7	13.4	13.6	25.3	0.50	63.9	4.45	7.07
28.1	13.4	13.7	25.3	0.49	64.2	4.34	7.08
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.1	13.3	13.6	25.3	0.49	64.1	4.33	7.08
31.5	13.8	12.4	17.1	0.41	73.7	4.82	6.97
28.1	13.4	13.8	25.3	0.50	64.2	4.36	7.08
27.9	13.4	13.6	25.3	0.48	64.2	4.41	7.08
28.7	13.5	13.6	25.2	0.50	64.2	4.45	7.08
29.1	13.4	13.5	25.3	0.50	64.2	4.44	7.07
28.9	14.3	11.2	14.6	0.50	79.7	4.74	9.14
28.8	13.8	13.3	20.1	0.50	69.6	4.65	8.01
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
29.1	13.4	13.5	25.3	0.50	64.2	4.44	7.07
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.9	14.3	11.2	14.6	0.50	79.7	4.74	9.14
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09

HEM	LDE	LDT	limfocit	Monocit	Neutrofil	Nr eritrocite	Nr leucocite
27.9	13.4	13.6	25.3	0.48	64.2	4.41	7.08
28.7	13.4	13.6	25.3	0.50	63.9	4.45	7.07
28.9	14.3	11.2	14.6	0.50	79.7	4.74	9.14
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.7	13.5	13.6	25.2	0.50	64.2	4.45	7.08
28.2	13.5	13.7	25.2	0.51	65.9	4.46	7.09
28.1	13.8	12.9	23.5	0.60	71.8	4.49	7.29
29.2	13.9	11.2	21.1	0.61	65.1	5.21	8.04
30.1	14.2	13.3	16.3	0.71	71.5	5.14	7.11
29.5	13.8	13.2	20.0	0.51	66.7	4.96	8.62
29.6	14.0	11.6	24.8	0.68	78.0	4.44	8.06
30.5	14.1	17.0	23.6	0.61	64.1	4.74	7.82
31.4	13.4	13.6	23.0	0.53	72.9	4.95	7.62
29.7	13.7	12.3	16.5	0.64	68.8	4.71	9.10
28.3	14.1	11.8	15.9	0.68	73.3	4.71	7.29
30.2	13.5	11.8	17.1	0.74	66.5	4.72	7.95
29.6	14.1	13.0	19.7	0.64	77.4	4.76	8.04
28.8	13.3	12.9	16.2	0.72	74.1	5.11	7.62
29.9	13.4	12.0	14.7	0.64	77.8	4.75	8.18
31.5	13.8	12.4	17.4	0.52	69.4	4.91	7.34
29.2	13.3	13.4	18.6	0.48	78.8	5.09	8.79
28.9	13.8	12.5	15.1	0.61	69.2	5.00	8.96
29.8	14.0	12.7	24.6	0.49	72.5	4.89	7.42
29.5	13.8	12.7	15.9	0.59	77.9	4.63	8.18
28.7	13.5	13.4	16.4	0.66	73.5	5.02	8.90
28.9	13.8	12.0	21.1	0.49	71.4	4.95	8.18
30.8	13.7	11.3	14.6	0.75	68.4	5.03	8.24
30.0	14.1	13.7	16.3	0.69	73.8	4.79	8.06
31.3	13.8	11.9	25.1	0.71	72.9	4.66	7.20
28.8	13.8	13.5	23.2	0.51	75.0	5.21	8.95
31.3	14.1	13.1	14.9	0.61	75.8	5.17	8.98
31.5	13.6	11.6	16.4	0.65	77.5	4.51	8.15
29.6	13.4	13.1	17.0	0.70	67.1	4.78	7.20
28.5	14.3	11.2	16.7	0.66	78.2	4.59	7.14
28.2	13.3	13.6	24.7	0.69	64.9	4.78	8.06
31.1	13.8	12.1	24.0	0.58	65.0	4.87	8.93
29.8	14.3	13.0	18.5	0.66	65.6	5.08	8.64
29.4	13.6	12.0	20.4	0.71	65.4	4.66	8.59
31.3	13.8	11.6	17.9	0.56	76.7	4.46	8.96
30.2	14.3	12.6	21.9	0.74	64.8	4.61	8.44
29.2	13.6	13.3	19.0	0.67	71.6	4.57	7.96
28.1	13.5	13.3	18.8	0.75	76.6	4.87	7.93

HEM	LDE	LDT	limfocit	Monocit	Neutrofil	Nr eritrocite	Nr leucocite
28.4	14.3	12.8	16.7	0.51	77.3	5.01	7.86
28.3	13.5	11.3	20.8	0.61	67.5	4.57	8.11
29.4	13.4	13.4	15.3	0.57	66.3	4.41	7.73
31.0	14.2	12.8	14.7	0.57	69.4	4.37	8.09
29.9	14.2	19.0	17.1	0.51	68.7	4.59	7.64
29.3	13.6	11.2	16.8	0.67	65.0	4.66	8.11
30.1	13.6	11.8	24.2	0.61	76.3	5.20	8.82
28.6	13.5	11.5	17.6	0.58	72.7	4.34	7.99
28.1	13.4	13.0	15.6	0.62	77.4	4.46	7.24
29.7	13.4	12.4	18.0	0.69	77.3	4.77	7.93
28.2	13.9	13.4	17.3	0.64	70.7	4.50	8.15
29.8	14.0	12.6	16.0	0.64	73.1	4.94	7.71
30.1	13.4	11.6	14.9	0.52	76.3	4.64	7.36
31.5	13.6	13.3	24.8	0.66	74.9	5.11	7.53
29.0	13.7	12.8	22.8	0.56	69.5	5.17	8.38
28.5	13.8	12.5	17.5	0.50	69.5	4.60	8.37
30.8	13.4	12.0	24.6	0.69	66.6	4.64	8.40
30.8	14.1	12.7	24.1	0.49	65.5	4.68	8.71
29.7	13.8	13.0	24.6	0.67	72.7	4.96	7.39
30.9	13.5	12.1	21.8	0.67	71.1	4.96	8.50
30.0	13.9	13.5	20.4	0.61	74.4	5.08	7.10
30.8	14.0	11.7	22.8	0.65	68.9	5.04	8.63
28.4	14.2	12.2	17.8	0.56	72.1	4.49	9.05
29.4	14.3	12.5	22.9	0.66	73.6	4.64	7.66
28.3	13.5	12.0	22.5	0.69	71.7	5.02	7.22
29.9	13.8	12.1	23.4	0.71	72.3	4.83	7.35
31.1	13.6	11.9	24.2	0.57	71.3	5.01	8.63
31.0	13.3	11.7	16.8	0.71	73.1	4.67	7.98
28.7	13.4	12.7	17.5	0.57	66.0	4.83	7.31
29.2	13.7	11.4	19.1	0.68	65.8	5.01	7.19
30.7	13.9	12.6	15.2	0.57	69.4	4.79	8.66
28.2	13.7	11.9	19.1	0.60	63.9	4.53	7.83
28.9	13.5	13.3	15.3	0.70	69.9	5.01	8.74
30.0	13.6	13.5	22.0	0.70	68.8	5.21	7.53
29.7	13.5	12.5	23.3	0.66	74.6	4.38	7.61
30.0	13.5	13.1	25.2	0.64	72.2	5.03	8.06
30.2	14.1	11.3	22.5	0.74	66.7	4.55	8.52
31.1	13.6	12.7	22.5	0.60	78.4	4.99	8.26
28.4	14.1	13.4	15.4	0.61	65.8	4.78	7.62
29.6	13.7	19.0	24.6	0.51	69.0	4.97	8.20
30.8	13.3	11.3	15.9	0.68	79.4	5.09	7.36
28.5	14.1	11.3	25.1	0.66	69.3	5.11	7.67

HEM	LDE	LDT	limfocit	Monocit	Neutrofil	Nr eritrocite	Nr leucocite
30.3	14.0	13.7	18.3	0.69	69.4	4.95	8.91
29.8	13.7	11.6	21.6	0.60	65.5	4.59	9.02
29.4	14.0	11.8	16.0	0.65	69.7	5.15	8.54
29.2	14.2	13.4	24.5	0.58	64.0	4.54	9.13
28.5	13.5	12.4	19.9	0.72	70.7	4.59	7.45
30.5	13.5	13.1	15.6	0.71	68.8	5.01	8.53
28.9	13.8	12.1	17.3	0.59	64.2	4.76	8.14
31.2	14.2	11.8	19.6	0.51	79.3	4.37	8.71
30.4	13.8	11.4	22.6	0.66	77.3	4.85	7.74
30.7	13.3	13.1	20.7	0.49	69.8	4.81	7.08
30.6	13.9	12.7	15.0	0.61	72.0	4.69	8.67
29.6	14.2	12.5	14.8	0.52	71.0	5.10	7.17
30.6	13.8	12.1	18.6	0.56	64.4	5.08	7.35
29.7	13.5	11.6	18.2	0.73	64.7	5.17	8.03
27.9	13.5	11.5	17.2	0.68	69.5	4.88	7.90
29.5	14.0	12.1	19.5	0.57	73.9	4.49	7.26
29.9	13.8	12.8	15.8	0.62	74.6	4.73	7.61
28.7	13.5	11.9	23.7	0.65	75.6	5.16	7.91
28.7	14.2	12.9	18.9	0.57	72.2	5.12	8.56
29.8	13.4	13.2	25.0	0.62	64.3	5.11	8.64
28.1	13.8	12.2	19.5	0.53	78.5	4.42	8.93
29.4	14.1	11.9	16.3	0.69	79.5	4.37	7.10
31.2	13.4	11.2	14.9	0.66	75.6	4.70	8.41
30.8	14.0	13.6	19.9	0.69	75.3	4.66	8.67
28.5	13.7	13.2	20.3	0.56	71.3	5.07	7.74
29.0	13.8	11.8	23.6	0.71	68.4	4.62	7.44
30.4	14.1	12.9	17.5	0.63	75.9	4.66	8.96

Tabelul 20. Markeri biochimici si hematologici

Trombocite	Urea	VEM	VTM	Alfa2 globulina	Gamma globuline	Albumine	Colesterol HDL	Colesterol LDL	Glucoza serica
150-400	25-50	80-94	7.5-11.5	6-9%	14-21%	52-62%	>40-60mg/dl	100- mg/dl	60-99 mg/dL
224	35	84.9	11.0	8.6	20.0	45.7	63.5	138.3	92.6
224	34	84.8	11.0	5.9	15.0	54.5	54.1	145.4	85.4
113	34	84.7	12.0	5.9	20.6	58.6	58.6	133.6	110.3
224	35	84.9	11.0	11.9	13.6	62.1	47.8	119.5	111.5
261	48	86.0	10.0	12.1	13.5	51.0	62.2	137.8	62.0
198	49	87.8	13.1	15.4	16.2	54.9	52.4	109.2	64.2
353	54	85.9	10.0	7.4	17.5	57.8	53.0	108.1	105.3
224	34	84.8	11.0	13.6	15.1	56.1	50.8	120.5	66.3
231	36	85.2	11.2	14.9	14.0	49.0	50.7	117.6	89.9
229	34	84.7	10.9	5.9	18.0	56.5	56.6	100.6	83.7

Trombocite	Ureea	VEM	VTM	Alfa2 globulina	Gamma globuline	Albumine	Colesterol HDL	Colesterol LDL	Glucoza serica
224	34	84.8	11.0	13.4	20.9	55.9	52.5	139.5	87.1
224	35	84.9	11.0	10.1	13.6	60.1	51.7	114.9	103.9
223	34	84.7	10.8	7.5	19.9	45.5	59.8	117.1	107.7
198	45	90.2	10.4	15.3	21.9	57.5	62.5	134.7	107.5
224	35	85.1	11.0	6.7	16.4	53.2	41.3	134.9	81.6
113	34	84.7	12.0	5.9	14.3	62.4	56.0	115.7	74.1
179	34	84.7	11.0	8.9	19.4	56.2	57.8	105.1	102.8
220	34	84.6	11.0	5.1	17.1	52.1	45.8	101.3	85.6
321	54	85.9	10.0	9.4	13.8	59.0	40.1	132.2	63.3
261	48	86.0	10.0	8.2	12.8	51.6	66.7	147.6	66.9
224	35	84.9	11.0	11.8	19.2	54.0	58.3	114.4	111.3
220	34	84.6	11.0	13.4	15.8	50.0	66.2	115.4	111.4
224	35	84.9	11.0	13.8	18.4	49.2	43.6	128.8	68.3
223	35	84.8	11.0	11.0	19.4	52.5	41.4	133.2	95.2
310	54	85.9	10.0	10.1	21.8	48.2	48.1	117.4	80.9
224	35	84.9	11.0	12.8	14.2	59.3	46.6	104.8	70.2
224	35	84.9	11.0	15.8	14.5	56.9	51.8	129.3	84.9
224	35	84.9	11.0	8.5	12.4	50.9	63.2	147.4	98.7
224	35	84.9	11.0	12.9	16.3	54.6	58.6	121.9	84.0
113	34	84.7	12.0	13.4	20.0	47.5	61.6	100.0	73.1
229	34	84.7	10.9	5.7	15.1	45.8	44.1	137.8	67.0
313	54	85.9	10.0	11.0	19.9	55.8	58.6	118.0	69.1
224	35	84.9	11.0	14.8	19.6	53.5	60.6	119.2	104.4
179	34	84.7	11.0	12.2	19.2	51.8	57.9	100.5	93.4
224	35	84.9	11.0	9.3	14.1	62.0	51.0	112.0	60.6
213	36	89.0	11.6	13.9	19.9	56.6	52.1	103.6	60.4
224	45	88.2	11.8	6.1	12.1	49.4	55.8	127.3	71.9
113	48	88.9	10.1	13.9	19.4	48.9	60.1	145.4	93.0
192	41	86.8	11.9	7.4	12.2	52.5	56.0	135.2	61.1
211	42	85.5	11.2	5.5	14.5	56.9	60.9	138.6	75.0
228	44	88.3	11.1	10.7	18.9	52.9	47.8	103.8	110.0
194	54	89.1	10.1	8.4	19.4	48.7	52.7	99.7	79.6
197	51	89.5	11.5	9.3	15.1	61.6	40.6	128.2	101.1
200	38	89.8	12.1	15.6	20.8	53.6	49.2	137.1	96.9
197	48	88.4	10.5	11.5	14.4	51.3	49.6	132.5	103.3
212	41	88.2	10.9	15.3	14.9	62.1	45.8	130.7	80.9
228	36	88.4	10.3	10.3	21.7	62.3	46.7	140.7	80.6
218	40	89.3	11.8	11.8	18.7	59.2	45.0	128.7	109.6
225	51	87.1	11.6	14.3	15.3	46.2	58.8	111.4	111.3
198	52	89.5	12.2	7.0	12.9	53.6	59.7	135.5	75.1
202	43	88.5	11.8	15.5	19.3	48.5	58.4	102.8	108.0

Trombocite	Ureea	VEM	VTM	Alfa2 globulina	Gamma globuline	Albumine	Colesterol HDL	Colesterol LDL	Glucoza serica
222	49	88.3	10.2	13.7	20.8	49.6	59.2	143.8	110.8
207	36	86.4	10.9	15.5	16.6	56.2	62.7	112.0	92.8
348	45	89.2	10.9	11.6	17.5	55.8	61.2	132.4	68.1
261	46	87.6	11.5	6.2	20.4	46.6	55.0	134.5	69.0
224	48	87.8	10.4	12.1	21.5	54.9	46.6	129.2	73.7
220	39	88.0	13.0	7.9	18.3	47.6	55.5	113.7	111.8
224	35	89.7	12.1	10.8	17.7	48.4	47.9	107.5	68.0
223	37	88.2	12.5	12.8	18.4	55.5	66.6	144.8	77.1
323	39	85.7	11.2	10.7	15.1	59.6	58.7	119.6	94.0
204	36	86.0	10.9	6.7	12.9	47.9	58.8	141.2	102.2
218	34	89.7	12.2	12.5	16.5	60.8	59.8	114.3	91.1
203	35	89.7	11.1	11.4	20.2	55.1	48.8	141.0	89.0
224	49	87.2	11.3	7.9	12.9	55.4	53.3	110.0	104.9
113	38	89.2	12.5	15.8	17.4	62.0	44.7	100.1	88.5
229	54	86.2	12.9	7.0	12.3	52.6	65.1	124.9	62.2
352	40	88.0	11.7	12.4	12.1	58.8	60.0	112.5	77.1
224	39	86.3	11.1	13.5	14.1	53.8	62.3	117.7	82.2
179	54	87.1	10.3	14.5	14.4	51.0	46.1	125.5	67.7
224	48	85.8	10.4	11.9	14.2	57.7	52.3	123.3	71.1
225	48	87.2	11.4	15.7	12.7	47.4	64.6	117.5	109.6
219	48	86.0	12.7	8.5	12.6	51.1	42.4	146.7	97.0
113	48	86.2	12.3	11.2	12.4	50.3	54.1	140.3	103.5
211	42	89.6	11.0	12.4	22.0	56.1	53.3	136.3	74.5
208	51	85.6	12.6	10.3	13.3	57.2	52.4	113.1	86.3
193	40	89.4	12.9	5.8	14.6	48.6	47.4	109.8	83.0
304	42	86.7	12.0	6.2	16.0	53.7	49.0	125.3	102.1
227	54	88.4	11.7	7.0	18.1	51.0	56.9	104.5	76.5
203	44	89.2	12.5	10.3	21.7	54.6	52.4	122.2	67.1
202	46	87.6	13.0	15.1	17.2	54.1	58.4	138.1	73.0
204	35	85.3	10.2	10.6	14.2	53.4	47.6	145.6	99.3
215	43	89.6	10.3	8.5	19.1	53.9	60.3	137.9	65.4
229	52	87.0	10.1	9.3	17.0	56.7	47.1	114.9	82.8
211	42	86.5	11.9	14.2	18.5	50.3	56.4	138.6	73.6
225	41	86.4	10.4	11.3	18.6	55.2	59.2	134.8	67.8
221	46	89.7	11.2	7.8	16.5	48.7	60.5	141.0	91.7
210	37	88.9	11.7	9.5	14.8	60.1	47.1	141.5	91.1
192	48	85.9	10.8	10.5	15.0	59.4	55.4	104.8	88.0
333	36	89.2	10.1	11.9	19.9	55.2	44.4	105.1	107.0
221	53	88.9	11.4	15.8	16.3	59.8	42.6	113.1	108.5
217	52	85.7	12.6	5.6	13.6	57.1	52.9	132.0	83.5
230	50	87.6	13.0	13.3	18.7	55.2	51.3	110.5	67.3

Trombocite	Ureea	VEM	VTM	Alfa2 globulina	Gamma globuline	Albumine	Colesterol HDL	Colesterol LDL	Glucoza serica
212	44	85.7	12.1	6.8	18.7	62.2	49.6	116.7	78.4
214	45	84.7	11.5	15.6	12.4	51.7	66.1	143.0	69.3
321	44	85.0	10.6	7.9	20.1	52.7	60.5	111.0	60.4
219	46	86.7	12.6	15.5	16.8	57.0	51.1	119.8	85.7
219	48	86.0	11.4	10.4	19.6	61.7	45.9	123.3	95.1
203	52	86.8	12.4	5.9	12.7	47.3	52.7	105.0	77.1
197	52	85.3	11.4	15.3	21.9	48.5	66.9	126.1	99.9
200	35	85.7	11.7	14.9	19.3	54.3	63.5	145.1	65.2
217	41	85.2	10.3	7.4	15.4	45.1	53.6	143.1	110.5
312	41	85.5	11.7	9.5	17.3	59.7	62.2	129.6	95.5
194	42	88.8	11.3	12.5	14.6	50.6	64.7	147.9	93.5
225	38	88.8	12.9	7.8	17.3	49.8	66.6	109.0	70.7
231	36	87.5	12.8	15.0	14.7	61.0	45.5	144.7	63.0
217	49	90.1	12.6	8.2	19.0	61.2	48.3	140.0	108.6
193	37	90.2	11.9	13.6	21.9	54.0	45.2	106.3	76.2
203	37	88.8	12.3	7.9	13.1	52.4	49.5	147.6	91.4
213	44	85.0	12.6	9.6	16.2	57.2	40.5	103.5	62.0
220	45	87.8	11.0	13.2	20.8	55.4	64.1	125.4	76.4
219	39	89.3	10.2	15.4	16.0	55.1	66.7	107.0	73.7
353	44	86.5	10.4	5.4	13.2	48.0	52.2	134.9	103.5
234	41	90.1	10.5	6.2	16.6	53.1	64.2	104.6	71.1
201	40	88.0	11.8	12.6	20.7	58.3	54.2	123.5	96.9
222	35	88.3	11.7	9.4	15.8	60.9	48.6	111.8	62.4
214	38	88.6	10.2	11.0	17.7	50.4	58.9	126.3	104.8
217	48	88.1	10.1	13.7	21.0	53.2	46.8	134.4	59.9
195	37	89.1	12.8	8.1	13.2	47.9	43.1	123.2	112.6
201	53	86.7	12.9	7.5	17.0	54.3	42.7	106.8	95.9
198	37	89.7	10.5	6.8	13.7	53.3	40.7	136.4	83.8
227	45	88.2	10.9	15.4	19.5	52.0	61.6	111.9	105.6
220	37	86.6	11.1	9.7	20.1	45.8	58.5	111.7	82.9
214	37	87.5	12.7	7.5	18.8	48.1	55.3	113.0	100.6
350	42	86.8	11.7	13.8	14.4	53.2	44.2	100.2	93.5
225	40	84.7	10.3	8.3	17.4	62.3	55.0	132.1	68.6
208	36	84.8	11.9	10.4	15.2	56.2	47.2	118.0	78.1
223	49	88.5	10.3	12.3	13.2	62.1	44.0	128.9	71.7
199	39	87.7	11.8	7.4	15.7	53.7	54.6	138.0	73.0
222	42	87.8	11.4	7.6	21.6	57.3	55.6	127.6	99.0
330	54	89.4	11.4	13.2	20.4	50.9	65.2	136.8	83.9
205	38	87.8	10.7	10.1	21.3	61.2	51.6	125.8	82.4
224	48	86.4	10.4	13.3	20.5	47.5	61.0	115.3	104.0
204	44	88.0	12.4	7.9	13.0	49.1	65.4	105.2	74.8

Trombocite	Ureea	VEM	VTM	Alfa2 globulina	Gamma globuline	Albumine	Colesterol HDL	Colesterol LDL	Glucoza serica
208	52	85.8	10.8	11.6	14.8	61.2	59.8	127.1	110.2
195	37	86.5	12.3	7.8	21.6	51.7	48.8	116.5	79.7
233	53	89.6	12.3	15.7	19.4	48.9	45.7	141.2	76.9
345	42	90.1	10.9	12.4	17.0	61.8	56.8	99.9	75.2
222	48	87.6	10.6	8.3	21.4	49.5	64.2	138.6	66.2
203	37	87.4	13.0	14.9	16.0	48.9	47.3	126.3	84.1
230	53	89.1	10.4	5.6	20.7	45.3	44.5	105.4	108.5

This is mainly due to the fact that relapses in such carcinomas are significant. The mean values are sensitively close, somewhat larger in male dimensions. The variance is the same, approximately approximate, with values more scattered in male tumor sizes. Between the dimensions of tumors in males and their dimensions in women is not a significant difference (Figure 156).

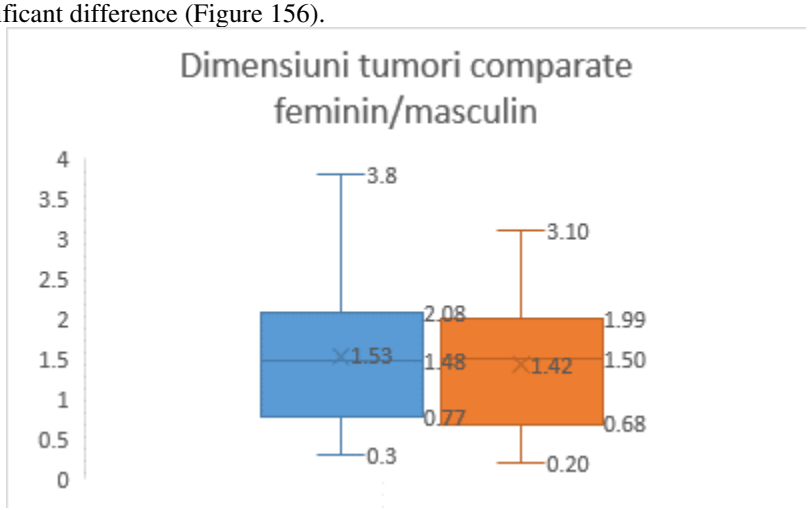


Figure 156. *Boxplot chart male - female dimension tumors*

Among the tumor size environments in the two patient, urban and rural backgrounds there is no significant difference (Figure 157). Figure 162 shows that 51% of male patients have values below normal, indicating a glomerular filtration impairment.

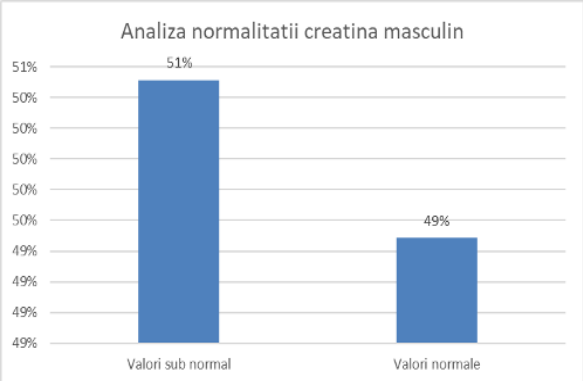


Figure 162. *Male creatinine analysis*

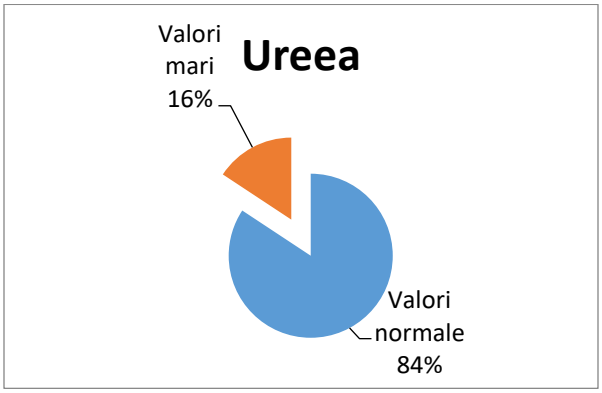


Figure 171. *Analysis of normality of urea values*

Figure 171 shows that most values do not exceed the normality threshold (84%). However, there is a 16% above this limit. These elevated values beyond the normality limit may be due to pre-renal causes, such as some mechanisms that work before glomerular filtration. One of these mechanisms is the effect of reducing renal blood flow due to diabetes mellitus or insipid diabetes. Another cause of elevated values is renal (glomerular, tubular, vascular or intestinal disorders): acute renal failure (glomerulonephritis).

Men's cholesterol levels (Figure 179) do not show values below normal, but show a high percentage of 68% of values above normal values. There are 32% of normal values, correlated with elevated LDL cholesterol, indicating a high atherogenic risk.

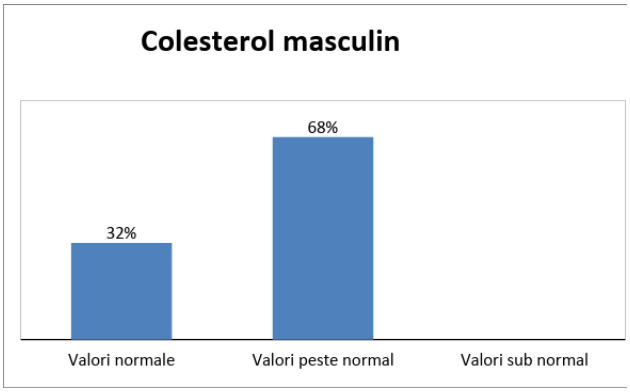


Figure 179. *Normality of male HDL colesterol*

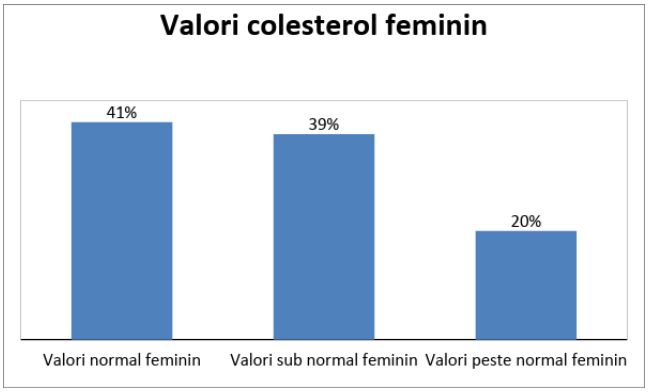


Figure 181. *Normality analysis of female HDL cholesterol*

In women, HDL cholesterol (Figure 181) shows a percentage of normal values of 41%. And the values below the normality range are high (39%), and the values above the normality threshold are 20%. 59% of patients with BCC have hepatic impairment and high atherogenic risk factor.

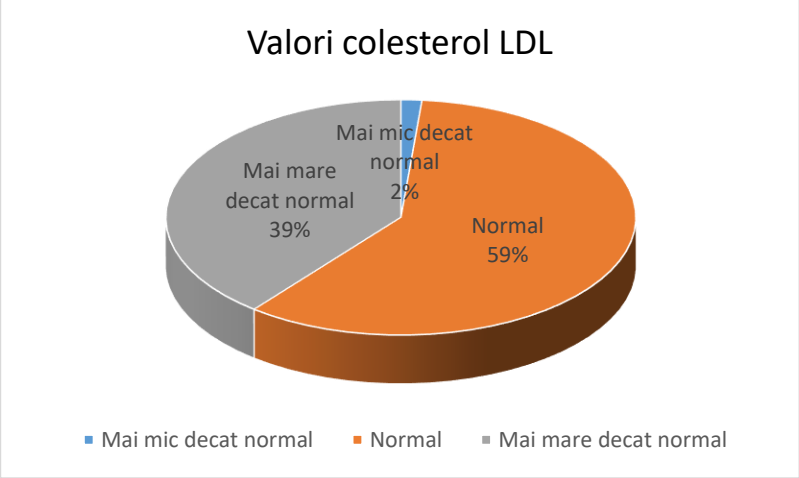


Figure 183. *LDL cholesterol normality analysis*

From the graph (figure 183) it is found that LDL cholesterol is between 59% normal values and below these values in only 2%. Above the limits of normality is 39%. 39% of patients have atherogenic risk.

GENERAL CONCLUSIONS

Basal-cell epitheliomas are slow-growing tumors, usually non-metastatic but invasive. It develops from the primitive germ cells of the skin epithelium and especially of the skin annexes. The analysis of the results was obtained by the study of the 140 patients with different forms of basal cell epithelium, admitted or treated outpatients in the Dermatovenerology Clinic of the Emergency County Clinical Hospital Constanta, 01.01.2017-31.12.2017 The analysis of the results of the study led to the following conclusions :

In the statistics presented there is a predominance of male sex (94 cases, 69%) than female (44 cases, 31%). Also, in line with literature data, there is a maximum incidence of basal-myomas in age groups of 61-80 years (totaling 71% of cases for this research). Frequency of basal cells increases with age. In older age the lesions appear multicenter, dressing the appearance described clinically as epitheliomatosis. The accumulation of noxes and carcinogenic factors along with the decrease in natural defense means can explain this increased incidence of basal infections in the elderly. The incidence of basal cells is also influenced by a number of other factors:

• Geography and climate: grows in sunny regions with low humidity and wind;
• Race and skin color: individuals with lighter skin, blondes are more exposed;

• Occupation: they are more common in people who practice outdoor activities exposed to solar radiation or cacinogenic factors (arsenic, tar, etc);
• The genetic factor.

To determine the regions most exposed to BCC development, a regional division was achieved in the 140 patients. In 89% of cases, the location was head-on, and only 7% and 4% of the locations were trunk, respectively members. In the cephalic extremity, the highest weight was on cheeks (26%), nose (21%) and eye (15%).

Concerning the proportion of localization of head injuries compared to the two genders, basal cell carcinomas are more common in women, unlike males, 61% of cases versus 28%.

In this statistic, of the total of 140 patients with epitheliomas, 51% come from the rural area and 49% from the urban environment. Rural predominance is explained by cumulative risk factors: increased sunlight, repeated microtraumatism. In some categories (farmers, fishermen), carcinomas even get the significance of occupational disease. Carcinoam sizes between 1-2 cm have a weight of 40% and 35% of them have dimensions less than 1 cm.

Carcinomas smaller than 2cm have the highest prevalence of female sex, 40%. Originating environments are not defining for the lesion size, slightly elevated for 1-2cm in the rural area. All these dimensions have a high head (38%) weight. Here we notice the nose, ears, cheek and nasal groove.

In the study, the predominant clinical form was nodulolecerative (51 cases). This type of carcinoma is predominantly in the 70-80 decade (43%). The second form in order of frequency is occupied by the nodular-pearl clinical form (32 cases), predominantly between 60-70 years. A low incidence is observed in superficial erythematous (5 cases), terebrant (4 cases) and sclerodermiform (2 cases) clinical forms. Histopathological forms show an adenoid preponderance with 46 cases (34%), occurring most often in the 70-80 decade (43%). There follows the cystic form with 37 cases (27%) and solid with 25 cases (18%). Nodululcerative carcinoma develops mainly in the urban environment, according to this study (20%), and scarring plan in rural areas (30%). Environments of origin do not develop preferential histopathological forms.

The head is the preferential topographic location for nodulo-ulcerative (31%) and adenoid (28%), especially cheek (29%), nose and eye (26%).

- The moment the doctor intervenes after tumor development is very important in the incidence of relapses. The delay can have irreversible consequences in the subsequent development of the tumor and finding optimal therapies to treat them successfully.
- Based on our statistics and a large number of cases, we believe that the safer method is surgical therapy, consisting of tumor excision. Electrocautery is an effective method, but in combination with contact radiotherapy (Chaoul) allows healing with low recurrence rates.

It can be noted that electrocautery was used for almost half of patients (55%). This method was chosen for small basal cell carcinomas of small size, because it leads to a targeted eradication of tumors, removes bleeding and superinfection. Electrocautery has a high percentage in men (36%), compared to only 19% in women. Disadvantages can be slow healing and subsequent unsightly traces, all the more so as this method extends almost across the size of the beach smaller than 2 cm. However, the head is the topographic location for which this treatment is used (51%), predominantly on the cheeks (28%), but also on the nose and eye (20%). The second place as treatment used, in frequency order, 24% of the cases is the surgical excision method. Surgical excision of cutaneous tumors is a radical, optimal treatment method, but requires prior dermatoscopic investigations, then histopathological investigations, while monitoring standard biological parameters. At head level it is used with a fairly high percentage (23%), especially on nose and cheek (29%).

Regarding the biochemical and haematological markers we can make the following assessments, comments and conclusions:

ALT analysis

It shows us a majority of normal values. Higher than normal (7%) values are insignificant, probably due to muscle trauma, obesity or dermatomyositis, pathologies not influenced by BCC.

Male creatinine analysis

It is noted that 51% of male patients have values below normal, indicating a glomerular filtration impairment.

Eosinophil analysis

The coefficient of variation has a high value, the distribution of values is uneven. Asymmetry is negative and within normal limits. And the vault is between normal limits. The normality of the values of this indicator shows that patients who presented themselves to a BCC doctor had no connective tissue disease, scleroderma or lupus erythematosus.

The serum glucose indicator

It has a 70% value within normal (60-99mg / dl). A percentage of 29% is over this range and only 1% is below the normality range. In conclusion, BCC also affects glucose metabolism (diabetes) in a proportion of 30%.

Female hematocrit indicator

It is between normal limits (35-47), for men there are 49% subnormal values, due to anemia, or vitamin deficiency, chronic inflammatory processes, long-term inactivity, heart or kidney disease.

Hemoglobin indicator

In males it contains 82% of the values below the normal range, indicating the presence of anemia and only 18% normal. For females the entered values are within normal limits. Low blood levels of hemoglobin may be due to anemia, lack of B12 vitamins, various hemorrhages, kidney disease, liver disease.

HEM indicator

It shows a variation coefficient of 4%, which indicates close values around the average. The maximum of the indicator and the minimum are within the normality limits. The asymmetry is positive, normal, with extreme values to the right. Normal values of this indicator (normocromy) can occur in macrocytic anemias, but they do not influence the development of BCC.

LDE indicator

The coefficient of variation shows that the standard deviation is 2% of the arithmetic mean of LDE values. The data series is grouped around their average, the string is homogeneous. The asymmetry is positive, normal, with extreme values to the right. In macrocytic anemia, LDE is normal.

LDT indicator

In most cases, the LDT indicator values are lower than the normality limits of this indicator. The coefficient of variation is 10% and therefore the value series is homogeneous. This may be due to viral infections, low platelet counts, leukemias, lymphomas, metastasis of cancers in the haematogenous marrow. Decreased platelet counts are also due to autoimmune (lupus) or radiotherapy.

The lymphocyte indicator

In the statistical analysis of the lymphocyte indicator, the coefficient of variation shows that the standard deviation of the data series is 19% of its arithmetic mean, so we can say that the string of this indicator is homogeneous around the average of 20.48. The maximum and minimum limits are framed by the normality values of this indicator, so there are no viral infections in the body.

The number of erythrocytes indicator

It presents normal values for the patients in question in an extremely high proportion (88%). Higher than normal values are 12%. Increase in red blood cell counts may occur in patients with bronchitis, congenital heart disease, dehydration.

The indicator leukocytes

Leucocytes have normal values (55%) in a proportion equivalent to those above the normality limit (45%). The 10% variation coefficient indicates the uniformity of the white blood cell data string. Increased leukocyte counts can be due to bacterial infections, acute inflammatory diseases, physical stress and emotional stress, trauma.

Analysis of urea normality

Most values do not exceed the normality threshold (84%). However, there is a 16% above this limit. These elevated values beyond the normality limit may be due to pre-renal causes, such as some mechanisms that work before glomerular filtration. One of these mechanisms is the effect of reducing renal blood flow due to diabetes mellitus or insipid diabetes. Other causes of elevated values are renal (glomerular, tubular, vascular or interstitial) disorders: acute renal failure (glomerulonephritis).

The albumin indicator

Albumin values show that 58% of these are within the normal range (52-62%). 36% of the values are above the normality threshold and only 6% are below the threshold. 42% of patients suffer from anemia.

HDL indicator

HDL cholesterol values for men do not show values below normal, but show a high percentage of 68% of values above normal values. There are 32% of normal values, correlated with elevated LDL cholesterol, indicating a high atherogenic risk. In women, HDL cholesterol values show a percentage of normal values of 41%. And the values below the normality range are high (39%), and the values above the normality threshold are 20%. 59% of patients with BCC have hepatic impairment and high atherogenic risk factor.

LDL indicator

It is found that LDL cholesterol is between 59% normal values and below these values in only 2%. Above the limits of normality is 39%. 39% of patients have atherogenic risk.

Distribution of total male cholesterol

It is noted that most values are normal (89%) and only 11% are elevated total cholesterol. Coefficient of variation of 9%. Increased values may be due to diabetes mellitus and hyperthyroidism.

Maintaining optimal immunological status by relying on confidence in medical, surgical or medical intervention associated with resting hours, balanced dieting, and avoidance of exposure to sun radiation can contribute to the successful prophylaxis or treatment of cutaneous basal cell epitheliomas as well as improving biological status of patients. Contact radiotherapy has a percentage of 16%, is noticeable in sizes between 1-2 cm and cytostatic topics are in the last place, representing 4%.

In this doctoral thesis, through complex studies carried out, a public health problem is addressed; the evolution and prognosis of this disease being decisively influenced by the physician, by knowing the biochemical, haematological, biophysical, histological markers, etc. it is advisable for patients to report to their physician for a prophylactic treatment as the first symptoms as the exact knowledge of the lesions and the onset of malignancy will lead to improved prognosis and appropriate treatment.

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