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Abstract Book

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O-01

Skin cancer epidemiology

The role of prevention in skin cancer epidemiology

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The best prevention against skin cancer is undoubtedly the consistent use of UV protection from childhood. But what happens if we haven't done this adequately?

Skin in UV-exposed areas may develop UV-induced actinic damage in DNA sequences leading to proliferation of keratinocyte carcinoma, a type of non melanoma skin cancer. Actinic keratosis represents early stage in situsquamous cell carcinoma. It develops from the basal cell layer and may be present in subclinical stages, being reported as field cancerization, even before being clinically visible. Thus, we hypothesize that from the age of 50+ UV□exposed skin features subclinical forms of AKs without visible skin lesions.

The action of topical immunomodulators is not restricted to visible AK lesions, but often includes their vicinity, suggesting that neoplastic processes are frequent at a cellular level, not confined to clinically evident lesions, supporting the concept of field cancerization. Thus, subclinical AKs do exist in an early, macroscopically invisible state and may be targeted by imiquimod or 5-FU. At this stage, AKs are being treated before diagnosis by usual clinical means, and well before potential progression to invasive SCC.

From an epidemiological point of view early diagnosis and immunomodulatory treatment of keratinocyte cancer in subclinical stages could also benefit the financial parts of health systems worldwide.

O-02

Adjuvant and neoadjuvant treatment

Melanoma Adjuvant Therapy

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Adjuvant therapy in melanoma can be devided in the Old Era (Interferon-alpha) and the New Era (ipilimumab , nivolumab, pembrolizumab for all stage III patients regardless of BRAF status, and the option of dabrafenbib+trametinib combination for BRAFmutant patients)

In general: what works in advanced melanoma also works in the adjuvant setting

An overview of the adjuvant ipilimumab, nivolumab, pembrolizumab and dabrafenib + trametinib phase 3 trials will be presented. Moreover the success of adjuvant ipilimumab+nivolumab in resected stage IV and the failure of a different schedule of ipilimumab+nivolumab in stage IIIB/IV.

The recent data of adjuvant pembrolizumab and nivolumab in stage IIB/IIC will be presented and the smaller absolute benefits of adjuvant therapy in lower stages of melanoma.

Biomarker approches to identify those patients with the highest risks will be discussed and their potential value in the very big patient populations stages IB-IIA and IIB/C

Simple rescheduling pembrolizumab by administering the first 3 doses before the lymphnode dissection in patients with macroscopic stage III melanoma (the SWOG1801 Trial) provide a new best practice because of a further 42% reduction of relapses compared to standard adjuvant 18 doses of pembrolizumab. This observation will be highlighted and provides the bridge to the current revolution: NEO-Adjuvant immunotherapy.

P-01

Skin cancer epidemiology

Artificial ultraviolet radiation and skin melanoma in Iceland and the Faroe Island

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Background: A drastic increase in the incidence of skin melanoma following substantial exposure to sunbeds has been document in Iceland from 1995 to 2010 (Hery et al, AJE, 2010). High sunbed exposure has also been reported in the Faroe Islands.

Objectives: To document sunbed usage patterns and analyse melanoma incidence and mortality trends in Iceland and the Faroe Islands.

Methods: 5-year moving averages of age standardized incidence rates from 1960 to 2020 were computed using the NORDCAN data. Comparisons with other Nordic countries were made. Updated data on sunbed use were searched.

Results: The sunbed fashion started around 1980. In Iceland, 25% of subjects aged 12-15 years in 2004 used sunbeds in the last year. In the Faroe Islands, 44% of subjects born in 1963-77, and 67% of subjects born in 1978-92 used sunbeds before 18 years of age. After 1980, 5 to 10-fold increases in melanoma incidence occurred, mainly among females, with peak incidence rates of same magnitude in Iceland (2003), and the Faroe Islands (2006). Incidence rates levelled off after 2010, when restriction policies were introduced, but remained 2 to 4 times higher than before 1980. After merge of data from both countries, a 4.8-fold increase in numbers of melanoma deaths has been observed since 1985-89 (for 1.8-fold increase in Norway). Epidemiological observations cannot be explained by changes in dermatology services.

Conclusion: Despite small numbers of cases, comparable episodes of melanoma epidemic have affected Iceland and the Faroe Islands following massive exposure to sunbeds starting at young ages.

P-02

Skin cancer prevention

Covid-19 Lockdown and Cutaneous Melanoma Growth

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Background: Studies suggest that the thicker a cutaneous melanoma (CM), the greater the rate of vertical tumour growth (ROG). There was a fear that delays in CM diagnosis because of lockdown periods would lead to substantial increases in the incidence of thick melanoma.

Objectives: To estimate incidence rates of pT4 CM post-lockdown using ROG published for CM having a thickness 4 mm or less, and compare estimated rates with observed rates.

Methods: Using data from the nation-wide cancer registry of the Netherlands (Sangers et al, BJD, 2022), we computed incidence rates for pT4 CM per 30-day slots before the first lockdown (PreL: 01/01/2019 to 11/03/2020), during the 1st lockdown (L: 12/03 to 31/05/2020), and during the post 1st lockdown (PostL: 01/06 to 13/10/2020). We then estimated incidence rates expected in the PostL period if during the L period, CM having a thickness 4 mm or less would have progressed into pT4 CM according to published ROG.

Results: Observed incidence rates of pT4 CM were 47.0, 35.3 and 52.0 per 30-days in the PreL, L and PostL periods respectively. Based on published ROG, expected incidence rates of pT4 CM in the PostL period should have ranged from 70.9 to 97.4 per 30-days. The incidence rate of pT4 CM of 52.0 per 30-days observed in the PostL period is compatible with a much-reduced ROG at the moment the CM is removed.

Conclusion: ROG would not be linear over time, highest when the vertical growth starts followed by a gradual slowdown.

P-03

Skin cancer diagnosis

The influence of the Covid-19 lockdown on cutaneous melanoma stage at diagnosis

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Background: More than 50 publications suggest that delays in cutaneous melanoma (CM) diagnosis due to covid-19 lockdowns may have boosted the burden of advanced-stage disease. However, in most publications, statistics were restricted to changes in percentages of stage-specific CM diagnosed during and outside lockdown periods.

Objectives: To assess the influence of lockdowns on stage distribution of CM at diagnosis using incidence rates.

Methods: A publication on nation-wide CM registration in the Netherlands (Sangers et al, BJD, 2022) allowed the computation of incidence rates during and outside lockdown periods. We computed incidence rates for all and for stage-specific CM per 30-day slots for each of five periods: P1: (01/01/2019 to 11/03/2020), P2: 1st lockdown (12/03 to 31/05/2020), P3: post 1st lockdown (01/06 to 13/10/2020), P4: 2d lockdown (14/10/2020 to 27/04/2021), and P5: Post 2d lockdown (28/04 to 22/07/2021).

Results: Compared to CM incidence rates in P1, incidence rates dropped during P2 and P4, while they increased during P3 and P5. However, when the 4 periods from P2 to P5 were taken altogether, incidence rates of all CM, and of specific pT-stage were identical to rates observed in P1. The mean CM thickness in P1 was 1.50 mm for 1.53 mm over the 4 periods P2-P5.

Conclusion: Delays in diagnosis did not influence incidence rates of all CM and of specific pT-stage CM over the period extending from 11/03/2020 to 22/07/2021. Limitations of clinical activities due to the covid-19 pandemic should not lead to increases in mortality to due CM.

P-04

Skin cancer diagnosis

Emmprin and β-defensin expression in cervical squamous cell carcinoma with and without HPV infection - Immunohistochemical study

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Background

According to WHO cervical squamous cell carcinomas represents the 4th most common malignancy among women. Thereby, this represents an important reason to identify molecular transformations from early stages of cervical malignicy by evaluating the changes of molecules expression involved in carcinogenesis.

Tumor invasiveness and metastasis require the extracellular matrix degradation, especially under the action of MMPs, and existing studies from literature have shown that the stimulation of their expression is amoung others, due to emmprin, β-defensins.

Objectives

The present study aimed to highlight the immunohistochemical expression of emmprin and β-defensins of 6 female patients aged between 35 to 65 years, diagnosed clinically and histopathologically with cervical squamous cell carcinoma with and without HPV infection.

Methods

Tissue fragments harvested from the lesions were processed using standard staining with hematoxylin and eosin for histopathological diagnosis and some others fragments beside normal tissue were processed by standard immunohistochemistry technique using anti-emmprin antibody and anti- β-defensins antibody.

Results and Conclusion

Examination of the samples showed changes of expression level of emmprin and β-defensins compared to normal tissue. The results are in agreement with some literature data which have shown that emmprin can be considered predictive markers for some malignant lesions, being an important step both to assess the evolution of tumor development and to establish targeted and customized therapy.

P-05

Skin cancer diagnosis

IL-17: A Checkpoint in Oral Carcinogenesis

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Background: Oral potentially malignant disorders (OPMDs) pose a significant risk of progression to oral cancer, making early detection and intervention crucial to reduce morbidity and mortality. Interleukin-17 (IL-17), a pro-inflammatory cytokine involved in cancer pathogenesis, has shown promise as a possible biomarker for malignant transformation. The objective of this study was to explore the expression of IL-17 in OPMDs and its correlation with clinical characteristics, with the ultimate goal of elucidating the potential role of IL-17 in the development and progression of these lesions. A better understanding of the mechanisms by which IL-17 contributes to carcinogenesis could help identify potential targets for therapy.

Methods: The study enrolled 50 patients with OPMDs, from whom biopsy samples were collected and subjected to immunohistochemistry to assess IL-17 expression.

Results: Expression IL-17 was high in patients with OPMDs and was linked to an increased risk of malignant transformation and lower disease-free survival rates. Our unpublished findings also indicate a significant decrease in maspin expression, a tumor suppressor protein, in OPMDs with high IL-17 expression. This suggests that maspin may have a tumor-suppressing effect by inhibiting the oncogenic effects of IL-17 and its downregulation may contribute to the development and progression of OPMDs. Further studies are necessary to fully understand the underlying mechanism and clinical significance of maspin in OPMDs.

Conclusion: These findings suggest that IL-17 expression could serve as a valuable biomarker for predicting the malignant transformation of OPMDs and determining clinical outcomes. The potential of IL-17 as a target for developing novel therapeutic strategies to prevent progression of OPMDs to oral cancer warrants further investigation. Future studies with larger sample sizes are needed to validate these findings. This study underscores the significance of IL-17 in the development of OPMDs and the importance of early detection and intervention in preventing progression to oral cancer.

Key words: Oral potentially malignant disorders (OPMDs),Interleukin-17 (IL-17),Biomarker, Malignant transformation,Immunohistochemistry

P-06

Skin cancer diagnosis

Analysis of cell-free tumor DNA in cerebrospinal fluid as a diagnostic biomarker for leptomeningeal melanoma metastasis: a case series

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Background: Melanoma patients with leptomeningeal metastasis (LMM) have a poor prognosis. MRI and malignant cell detection in cerebrospinal fluid (CSF) are the gold standard for diagnosis. Ambiguous results often delay treatment initiation in this urgent medical setting.

Objectives: Evaluating cell-free tumor DNA (ctDNA) in the CSF as a complementary diagnostic biomarker.

Methods: Retrospective review of medical records of melanoma patients with clinically suspected LMM, who underwent MRI and cytological CSF analysis, complemented with BRAFV600- or NRASQ61-mutant ctDNA analysis on 1mL of CSF using the fully automated Idylla® platform.

Results: Nine patients were included (7 female, median age 55.7y; 6 BRAFV600-, 2 NRASQ61-mutant, one mutational status was unknown prior to CSF analysis). At CSF analysis, patients had stage IV-M1c (n=4) and IV-M1d (n=5) melanoma.

Six patients had MRI abnormalities, indicative for LMM. CSF analysis revealed malignant cells in 2 patients (1 with MRI abnormalities). CSF ctDNA analysis detected a BRAFV600- or NRASQ61-mutation in 5 patients (4/6 with; 1/3 patients without MRI abnormalities). In one additional patient with MRI abnormalities, repeated CSF ctDNA analysis became positive for the known BRAFV600E -mutation and a new NRASQ61-mutation. Progressive LMM were confirmed in all patients with positive ctDNA analysis during follow-up. Of the patients with negative ctDNA analysis, 1 displayed LMM during follow-up, the other 2 remained unaffected.

Conclusion: Analysis for BRAFV600- and NRASQ61-mutant ctDNA in CSF using the Idylla® platform holds promise as a complementary sensitive, specific and rapid (90min) diagnostic biomarker for LMM diagnosis, especially in ambiguous cases.

P-07

Skin cancer diagnosis

BRAF and NRAS mutations and multinucleated cells in cutaneous melanoma

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Background. Cutaneous melanoma is one of the most dangerous tumors in which BRAF (60%) and NRAS (18%) gene mutations are responsible for tumor development. Multinucleated giant cells (MGC) are frequently observed in melanoma histopathological analysis and thought to be associated with a worse prognosis.
Objectives. Here we focused on evaluating the presence of MGC, mitotic rate and lymphocyte infiltration in microscopic sections of melanoma and calculated the correlations of histopathological factors with the tumor mutational status.
Methods. We comprised a retrospective cohort of 100 melanoma samples acquired from patients treated in Riga East Clinical University Hospital, Latvian Oncology Center. DNA was extracted using GeneRead™ DNA FFPE kit (Qiagen, Germany). BRAF (V600) and NRAS (G12/13 and Q61) mutations were detected by digital droplet PCR (Bio Rad Laboratories, USA). MGC and other histopathological parameters were evaluated on hematoxylin and eosin stained slides.
Results. MGC were present in 51% of melanoma samples. Mutations in BRAF and NRAS genes were found in 80% of samples – the majority of mutations were found in BRAF (50%) gene, mutations in NRAS gene were found in 18% of samples and 11% of samples were double positive. No correlation was found between MGC count and BRAF and NRAS gene mutations, but significant correlations were found between the mutations in BRAF genes and mitotic rate with p-values of 0.031.
Conclusion. The presence of mutations in BRAF and NRAS genes is associated with larger mitotic rate and not correlated with the presence of multinucleated cells in the tissues.

P-08

Skin cancer diagnosis

The New Era of Skin Cancer Detection – Laser Induced Plasma Spectroscopy Combined with Deep Learning-based Diagnostic Algorithm

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Background

There have been many attempts to develop in vivo skin cancer diagnostic methods based on different technologies, such as multi-spectral imaging, reflectance confocal microscopy, optical coherence tomography, Raman spectroscopy and electrical impedance spectroscopy. However, they have insufficient diagnostic accuracy for clinical use.

Objectives

We investigated the diagnostic accuracy and safety of a real-time, noninvasive, in vivo skin cancer diagnostics utilizing non-discrete molecular Laser-induced plasma spectroscopy (LIPS) combined with a deep neural network (DNN)-based diagnostic algorithm.

Methods

LIPS can noninvasively extract biochemical information of skin lesions using a Q-switched Nd:YAG laser. The laser was used to irradiate the tissue and induce microplasma plumes. The microplasma emission was collected and spectrally resolved. In vivo LIPS spectra were acquired from 296 skin cancers and 316 benign lesions selected from 353 patients in a multisite clinical study. The diagnostic performance was validated using 10-fold cross-validations. For each round, an average of 7,731 and 859 spectral data points were used for training and testing respectively.

Results

The sensitivity and specificity for differentiating skin cancers from benign lesions using LIPS and the DNN-based algorithm were 94.3% and 88.6%, respectively. No adverse events, including macroscopic or microscopic visible marks or pigmentation due to laser irradiation, were observed.

Conclusion

The LIPS and deep learning-based skin cancer diagnostic device can be an objective tool to assist medical professionals for the evaluation of suspicious lesions and the decision for biopsy. This study shows promising opportunities for an accurate, real-time, in vivo skin cancer diagnostics in real clinical settings.

P-09

Dermatopathology

Impact of Helicobacter pylori Intoxxication on Skin Health in the Democratic Republic of Congo

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1. Background

For decades, massive poisonings have been suspected in DR Congo caused by a violent poison from the east of the country, called Karuho poison.

2. Objectives

In 1990, a study was launched at the Toxicology Service of the University of Kinshasa to establish the symptoms, causes, and treatment of this unknown phenomenon in hospitals.

3. Methods

A retrospective cross-sectional study was carried out on the data collected from patients who came for consultation, since 1990, for adequate care.

4. Results

Unexpectedly, in 2010, an intoxication linked to Helicobacter pylori was discovered. It was caused by the passage into the blood system, through the lungs, of carbon dioxide and ammonia gas, generated in the stomach by this bacterium. The symptoms are essentially extradigestive. With regard to dermatology, the skin dries out, becomes pale and darkens. Small pimples appear on the face and pubis. Itching may also occur. The results of this study have been presented at several international conferences.

5. Conclusion

Suspicions of poisoning in the DRC have led to the discovery of an unknown intoxication, linked to Helicobacter pylori, with skin pathologies, interesting to discuss in a forum of dermatologists, as the strong irritation of the skin could undoubtedly cause skin cancer. The pathophysiology of the intoxication will be discussed as well.

Key words : Helicobacter pylori, Intoxication, Dermatology, Skin pathologies, Skin cancer.

P-10

Dermatopathology

Comparison of mRNA expression patterns and clinicopathological features in actinic keratosis showing different responses to topical 5-Fluorouracil

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Background: Although the rate of actinic keratosis(AK) progression to an invasive disease is relatively low, the rate of AK as an aetiology of invasive carcinoma is much higher. Molecular studies on AK are limited in their methodologies because of too small size of the biopsy specimen to obtain enough DNA or RNA. As it is not possible to predict the risk of AK progression, more data on its pathophysiology, including molecular presentation, are needed.

Objectives: This study aimed to identify factors for risk stratification of actinic keratosis (AK) progression.

Methods:Twenty biopsy cases of AK were analyzed, with ten showing regression and ten progressing to invasive carcinoma. Using digital spatial profiling technology, gene expression analysis was performed on specific regions of interest in lesion keratinocytes (KT) and infiltrated stromal lymphocytes (LC).

Results: Differential gene expression patterns were observed between the regression and progression groups, with KRT10, KPRP, LORICRIN, and CXCL1 being primary genes in KT, and CARD18, LY6G6C, ELOVL4, and SPRR4 in LC. While age was a distinguishing factor among clinicopathological features, gene expression patterns provided a better stratification of AK progression risk in both cell types. Enrichment term analysis revealed upregulated pathways associated with various cancers in the progression group of KT and an upregulated NOD-like receptor signaling pathway in LC progression.

Conclusion: Gene expression patterns were more effective than clinicopathological features in predicting AK progression risk, providing insights into its pathophysiology and offering potential improvements in risk assessment.

P-11

Dermatopathology

Spongiotic Dermatitis in a Patient with Relapsed Chronic Lymphocytic Leukemia (CLL) Treated with Ibrutinib

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BACKGROUND

Spongiotic Dermatitis (SD) is a histologically specific finding of eczematous dermatitis. Ibrutinib, the first generation Bruton's kinase inhibitor, caused a revolution in CLL treatment. In a minority of cases it induces skin manifestations mainly of three types: i) a pruritic palpable purpura, ii) non pruritic edematous papules and iii) a non palpable petechial rash.

OBJECTIVES

We aim to report a non pruritic nodular skin rash, histologically described as SD, in a patient with CLL, receiving Ibrutinib therapy.

METHODS

The patient's medical records were reviewed after his informed consent. A 55-year old man with relapsed CLL was under Ibrutinib when he came out with a slightly pruritic, violaceous, nodular rash on the trunk, extremities and face on the second week of treatment (Figure). We performed blood tests and skin biopsy from one nodule.

RESULTS

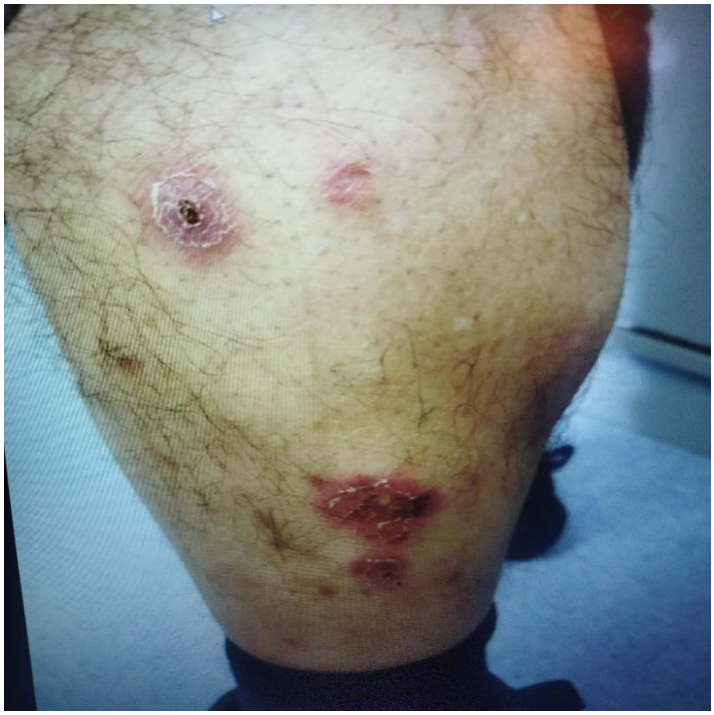
Eosinophils' and serum IgE levels were within normal range. Skin biopsy revealed epidermal spongiosis with inflammatory exudates, perivascular infiltration of lymphocytes in the dermis and focal extravasation of red blood cells. The immunohistochemical staining for B-cell clonality was negative.

DISCUSSION

In CLL Th2 profile dominates via secretion of cytokines by clonal cells, resulting in T cells infiltrates, necrotizing eosinophilic folliculitis and elevated serum IgE. Ibrutinib irreversibly binds and inhibits IL-2 inducible tyrosine kinase. Unlike Th2, Th1 has an auxiliary pathway leading to Th1 predominance, characterized by macrophages, neutrophils and cytotoxic T cells.

CONCLUSIONS

Our case is indicative of a rare Ibrunib's skin effect presenting as SD, a non-IgE delayed type hypersensitivity reaction dominated by Th1 profile.



P-12

Adjuvant and neoadjuvant treatment

Adjuvant Coformulated Vibostolimab With Pembrolizumab (MK-7684A) Versus Pembrolizumab Alone in High-Risk Stage II-IV Melanoma: Study Design of the Randomized, Double-Blind, Phase 3 KEYVIBE-010 Trial

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Background: Adjuvant pembrolizumab has significantly improved RFS and DMFS in patients with high-risk resected melanoma. Combining pembrolizumab with other therapies may further improve outcomes in this setting. The anti-TIGIT antibody vibostolimab demonstrated antitumor activity and manageable safety in combination with pembrolizumab in solid tumors in the phase 1 KEYVIBE-001 study.

Objectives: KEYVIBE-010 (NCT05665595) is designed to evaluate the efficacy and safety of adjuvant coformulated vibostolimab with pembrolizumab versus pembrolizumab alone in patients with resected high-risk stage IIB-IV melanoma.

Methods: Eligible patients are ≥12 years old, with surgically resected stage IIB or IIC (pathologic or clinical), III, or IV cutaneous melanoma (per AJCC 8th ed), and an ECOG PS of 0 or 1 (18 years), Karnofsky performance status ≥70 (≥16 to

Results: None.

Conclusion: None.

P-13

Adverse events treating skin cancer

Epidemiological study on the dermatocosmetic treatment of skin adverse events from systemic oncology therapy

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Objective: The creation of a reliable questionnaire which is addressed to patients who have been diagnosed with any form of cancer, have undergone any therapeutic approach and speak the Greek Language in order to collect data on the management of skin adverse events.

Method: The study includes the creation and the distribution of the printed questionnaire, to adult male and female oncology patients undergoing systematic oncology therapy in the Oncology Unit GPP, "Sotiria" General Hospital, School of Medicine, Athens, Greece. SPSS program was used.

Results: 68 women and 33 men patients participated in the study, with an average age of 62.5 years. The therapy regimens were classical chemotherapy, immunotherapy, targeted chemotherapy, hormone therapy and their combinations. The most prevalent and frequent skin symptom, in all therapy regimens, was rash with 29 patients in total, followed by desquamation in 20 patients, dry skin in 17 patients. 19 patients reported no skin symptom. The 79 patients were positive to receive advice from the Aesthetician-Cosmetologist, always with the consent of their attending Physician, for skin care both before the start of the treatment and during it. Also, only 9 patients had visited an Aesthetics center, however 64 were positive to receive not only advice but also aesthetic care. Finally, 49 patients were using cosmetics and skin care products.

Conclusion: The usefulness of such a questionnaire for the collection of data in oncology patients and the correct management of skin adverse events, as a part of Supportive Care in Cancer.

P-14

Skin cancer predisposition

Blepharitis marginalis and Meibomiam gland carcinoma

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Backround

Acute blepharitis most often responds to local treatment with eye drops or ointment, but may be resistant and develop into chronic form. Chronic blepharitis is indolent, recurrent. Exacerbations are inconvenient, uncomfortable, and cosmetically unappealing but do not usually result in problems with eye durface structures but in severe forms can lead to corneal scarring or vision loss.

Introduction

Usually symptoms by blepharitis include acute ulcerative (often secondary to staphylococcal or herpes virus infection), acute nonulcerative (usually allergic), and chronic (often with Meibomian gland dysfunction or seborrheic dermatitis). Secondary keratoconjunctivitis sicca usually accompanies chronic blepharitis.Common symptoms include itching and burning of the eyelid margins and conjunctival irritation with lacrimation, photosensitivity, and foreign body sensation. Diagnosis is usually performed by an ophthalmologist by slit-lamp examination. But we have to consider alternate diagnoses, including eyelid carcinoma, if chronic blepharitis is unilateral and does not respond to treatment.

Results

Case report of young woman age 30 who was treated for dry eye syndroma and blepharitis for 5 years with plausible results. Excision od small infiltration of the eyelid margin verified Meibomiam gland carcinoma.

Patient is 10 years after surgical excision without recurrence of Meibomiam gland carcinoma of the eyelid.

Conclusion

In unilateral affection with no succesfull treatment of keratoconjunctivitis sicca with artificial tears supplements we must think also oncology diagnoses, including eyelid carcinoma.

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Adjuvant and neoadjuvant treatment

Amniotic membrane application in the surgical treatment of eyelid tumors

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Background

The amniotic membrane (AM) has special properties, making it ideal for clinical applications in various surgical fields like ophthalmology. It is used more frequently to cover conjunctival and corneal defects.

The AM produces various numbers of growth factors, cytokines, and vasoactive peptides, which allow for epithelialization and support cell proliferation. Expression of growth factors is preserved even at -80°C. The AM has anti-inflammatory, anti-fibrotic, anti-angiogenic, and anti-microbial properties documented in many studies making it an attractive option in treatment plans.

The first-ever use of AM as a biological dressing was by Davis in 1910 for skin transplantation. In ophthalmology, it was attempted to use a fetal membrane to reconstruct an ocular surface in patients with symblepharon by de Rötth.

Objectives

In our retrospective study, we have treated patients with nonmelanotic eyelid tumors most frequently basal cell carcinoma but also melanoma patients. Patients with conjunctival tumors infiltrating the eyelid have been surgically treated in the period of 2011-2021. During the surgical excision, mitomycin C was used and the defect after the removed tumor was covered with the AM. In the analyzed dataset the males had just slightly higher chance of malignancy than females, 80% versus 78.3%. In two patients with basal cell carcinoma infiltrating the orbit region, vismodegib treatment was indicated.

Results

The results of our study indicate that AM grafts are an effective alternative to cover defects after the removal of peribulbar lesions due to their anti-inflammatory properties because the conjunctiva must be preserved.

Conclusion

The most important application of AM is in malignant peribulbar conjunctival tumors infiltrating the eyelid.

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Non-melanoma skin cancer

Periocular basal cell carcinoma treatment possibilities

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Backround

Basal cell carcinoma (BCC) as a non-melanoma skin cancer type is the most common malignant tumor throughout the world and is the most frequent malignancy in the periocular region. The incidence is higher in ages over sixty, but we can find patients also at very young ages.

Objectives

Over 50% of BCC of the periocular region initially occurs on the lower lid and inner angle infiltrating the canthus. Treatment options for basal cell carcinoma consist of surgery, or combined techniques plus vismodegib, radiotherapy, and imiquimod. The first consideration for the treatment of periocular BCC is radical surgical excision using Mohs micrographic technique.

Results

Group of patients with BCC in the periocular area in the period 2018/2022 and recurrence rate. Radical surgical exenteration was necessary to be performed in 3 patients.

Conclusion

Functional and esthetic outcomes in patients are important after clear excisions and reconstruction should be carefully considered. Radical exenteration is considered in the case of orbital invasion of high-risk aggressive BCC and individual epithesis is necessary to cover the large defect after surgical treatment.