

## POSTER ABSTRACTS

### **Study on the prognostic value of immunohistochemical markers in primary cutaneous malignant melanoma with a tumour thickness less than 2.00 mm**

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Keywords: Malignant melanoma, metallothionein

Background: One of the hardest prognostic questions in malignant melanoma (MM), which primary tumour less than 2.00 mm thick at diagnosis will be resulted in metastasis. Recently, metallothionein (MT) overexpression in cutaneous MM was reported as a highly significant and independent factor for progression and reduced survival of the disease, even in patients with thin MM. Aims and methods: In this pilot study we examined MT, bcl-2, p53 and Ki67 expression immunohistochemically on formalin fixed and paraffin-embedded tissue samples of MM removed between 1990 and 2006 with a tumour thickness less than 2.00 mm having regard to their metastatic potency (T1-2, n=39). Results: We did not find remarkable expression of p53 and bcl-2 proteins in the primary tumours examined. The ratio of Ki67 positive cells varied between 5 and 20% and although the level of Ki67 expression was higher in MM showing haematogenous spreading, the difference was not statistically significant. The expression of MT was significantly higher ( $p < 0.0001$ ) in the tumours with haematogenic metastasis compared to MM with no metastasis or with lymphogenic metastasis only. In all men with MM positive for MT developed hematogenic metastasis (13/13), but did not in all MT positive women (7/9). The average Breslow tumour thickness, localization, histological type, Clark level of the tumours or the average age of the patients were not significantly different ( $p > 0.05$ ) between MM with different metastatic potency. Conclusions: This study supports the prognostic relevance of MT expression in cutaneous melanoma for haematogenic progression, particularly in men.

### **Clinicomorphological and Immunophenotypic Features in Variate Stages of Tumoral Progression in Cutaneous Melanoma**

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Keywords: melanoma, primary tumor, metastasis

Cutaneous malignant melanoma is a highly aggressive malignant neoplasia arising from malignant transformation of normal skin melanocytic cells. Together with melanoma cells there is also a complex microenvironment composed of different stromal cells and variable angiogenesis and inflammatory infiltrate that contributes to a multifactorial process with importance for tumoral outgrowth, invasion and metastasis.

We hypothesized that these interconnections play a role in melanoma progression. Therefore we investigated our database for cases of primary and metastatic melanomas and performed supplementary special stainings to the cases chosen. For the metastatic cases we also recorded time between removal of primary tumor and metastases.

Our study included three groups: 24 cases of primary cutaneous melanoma with no identifiable metastasis, 13 cases with metastasis in regional lymphnodes and 6 cases with distant metastasis. We performed comparative identification of, of the three study groups concerning the tumor cell component and the interrelation between it and stromal reaction.

We hoped that identifying these changes would help increase our knowledge about the context of growth and metastatic spread of melanomas.

### **Tissue characteristics of tattoo-associated granulomatous dermal lesions. Case reports.**

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Keywords: tattoo; granulomatous inflammation; IHC;

**INTRODUCTION:** Tattooing has become increasingly popular in Western countries including Hungary which produces a growing prevalence in dermal complications as well.

**PURPOSE:** To report the potential for significant adverse tissue reactions associated with tattoos including the permanent eyeliner tattoos. Here we describe the histopathological and immunohistochemical (IHC) characteristics and the differential diagnostic pitfalls.

**METHODS:** An observational case series was conducted on 2 patients exhibiting late local dermal complications. The excised dermal tissues were analysed by means of conventional morphology and IHC techniques focusing on the structural changes, the identification of foreign material(s), and the characteristics of the cellular inflammatory components within and around the lesions. For references, other tissues harboring granulomatous inflammations were also analysed including lymph nodes with sarcoidosis which was used for laser capture microdissection (LCM) separation of granuloma macrophages to detect epithelioid cell derived mRNA for Carboxypeptidase M (CPM).

**RESULTS:** Clinically, in Case 1, a 27 year old female presented with a keloid like papule over the 6-year-old permanent eyeliner tattoo of the brows. Case 2, a 24 year old male patient with a black and blue and yellow-red colored tattoo on the right hand who developed local hyperemic nodules at site of red tattooing 6 months after the interventive cutan decorations. None of the patients had any infective or systemic immunologic disease including autoimmune disorders. Conventional hematoxylin-eosin based morphology revealed granulomatous dermal inflammations in both cases. In association with the permanent eyeliner tattoo (case 1), there were multiple sarcoid like granulomas with the presence of macrophage clusters and multinucleate cells which contained black and crystallized foreign material depositions, the latter identified under polarizing microscope. In case 2, multiple dermal granulomas with central necrosis and peripheral pallsading macrophages were observed comparable with the morphology of granuloma annulare and in part rheumatoid nodule. Hypersensitivity reaction was noted with the presence of eosinophils and intra- and extracellular red particulate depositions corresponding to mercuric sulphite. Inflammatory cells in both cases were composed of predominantly T-lymphocytes and the clusters of epithelioid macrophages that express CD163 and CPM proteins, respectively. As shown in mediastinal lymph node sarcoidosis, the macrophage activation in granulomas is signified by the mRNA upregulation encoded for CPM, and the protein expression levels are comparable with tattoo associated dermal granulomas reflecting type IV hypersensitivity reaction and in turn lipid uptake by these cells. The toxic and hypersensitivity tissue reactions with red (mercuric sulphite) tattoos may result in pallsading granuloma formation with degenerate, necrobiotic collagen but the presence of exogenous particles from tattoo pigments differentiate from granuloma annulare.

**CONCLUSION:** The development of granulomatous tissue reaction pattern confined to the tattoo area is readily diagnosed by the presence of exogenous insoluble pigment particles, which likely induce a localized T-cell mediated delayed type hypersensitivity reaction. The lesion must be differentiated from infective disease, sarcoidosis, and in case of necrotic palisading nodular lesions, from granuloma annulare and rheumatoid nodules.

### **PPAR $\gamma$ has different expression and signalling pattern in normal and pathologic sebaceous glands**

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Keywords: sebaceous carcinoma, PPAR $\gamma$ , laser microdissection

Peroxisome proliferation activated receptor  $\gamma$  (PPAR $\gamma$ ) has been implicated in lipid metabolism and also in inflammation. PPAR $\gamma$  is expressed in human sebocytes and it appears to have role in their functions. The details of PPAR $\gamma$ -regulated lipid metabolism in sebocytes are, however, not well understood.

Therefore our aim was to characterize the expression patterns of PPAR $\gamma$  and its target genes in normal and pathologic sebaceous glands in tissues and in the SZ95 sebocytes.

We applied FFPE skin samples of patients with sebaceous hyperplasia, adenoma and sebaceous carcinoma for immunohistochemistry, laser microdissected sebaceous glands and isolated RNA for RT-PCR. We studied function of PPAR $\gamma$  molecule in SZ95 sebocyte culture. Quantitative fluorimetric analysis were used to detect changes in lipid content.

We found that PPAR $\gamma$  protein is present in normal and hyperplastic sebaceous glands, in SZ95 cell line, but barely expressed in sebaceous carcinoma. We also demonstrated that mRNA of PPAR $\gamma$  and its lipid-metabolism associated target genes, ADRP and PGAR were present both in in situ samples and in SZ95 sebocytes.

These data suggest that PPAR $\gamma$  as a transcription factor is likely to play a role in normal and pathological sebaceous gland biology, thus possibly serving as a relevant target for further investigations in sebaceous gland-associated dermatoses and a potential target of therapy.

### **Atypical polypoid Spitz nevus - differential diagnosis with polypoid melanoma and schwannoma: A case report**

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Keywords: atypical Spitz nevus, melanoma, schwannoma

Atypical polypoid Spitz nevus is defined as a large pedunculated Spitz nevus with some degree of architectural or cytological atypia and the distinction from a polypoid melanoma may be difficult. We present a case of a 56 years old man clinically diagnosed with a large (~2 cm diameter), longstanding, unpigmented, polypoid lesion situated on the left knee. The histopathological aspect revealed an approximately well circumscribed, symmetrical, polypoid tumoral proliferation composed of round cells, moderately pleomorphic, some multinucleated, arranged in a nested, fasciculated pattern with schwannian areas. There was no significant mitotic activity. Because of

schwannian areas, it also may be suggestive for a schwannoma. The immunohistochemical analysis confirms the diagnosis of atypical polypoid Spitz nevus.

### **Choriocarcinoma metastizing to the skin &#8211; a case report**

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Keywords: choriocarcinoma, skin metastases, differential diagnosis

A skin biopsy sample of a 40-yr-old male was received. The clinical diagnoses of the livid nodule were the following: metastatic tumor, basal cell cancer or melanoma. Clinical information was limited. Histology was almost consistent with sebaceous carcinoma, but neither EMA nor CEA positivity was detected. Beside the vacuolated tumor cells, some multinucleated giant cells with eosinophilic cytoplasm were evident. HCG immune stain was performed, and it showed strong positivity in the giant cells; metastatic choriocarcinoma was diagnosed. The patient had dyspnoe and chest X-ray showed multiple, circumscribed, roundish shadows. He passed away with progressing symptoms of respiratory insufficiency.

Post-mortem examination found the primary tumor in the testis and multiple organ metastases, histologically it was an embrional carcinoma mixed choriocarcinoma.

Differential-dagnostically such rapidly progressing, destructing skin lesions might refer to cutan metastases, cutan T-cell lymphomas or lethal midline granuloma.

Skin metastasis of choriocarcinoma is a rare, only 12 cases have been reported so far. This case is the third in which a cutaneous metastasis was the first finding at initial presentation.

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### **HIV negative, HHV8 positive Kaposi's sarcoma complicating steroid dependent ulcerative colitis**

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Keywords: ulcerative colitis, Kaposi' s sarcoma, HHV-8

#### Introduction

Classic Kaposi's sarcoma (KS) was first described in 1872 by Móricz Kaposi as an idiopathic, multipigmented sarcoma of the skin. The disease became much more frequent with the world-wide spread of the HIV infection. Not surprisingly KS can also be induced by iatrogenic immunosuppression. In this group of the tumour spontaneous regression can be anticipated with the cessation of the immunosuppressive therapy. Recently human herpes virus-8 (HHV-8) infection was linked to the KS. Though therapy for ulcerative colitis (UC) may involve steroid treatment, the association of KS and UC is rare.

#### Report of a case

We report the case of a 49 years old men. He had been suffering from ulcerative colitis for four years. He was referred for restorative proctocolectomy because of steroid dependency, but prior his

referral he developed violaceous, reddish-brown macules and nodules on the extremities. This histologically was proved to be Kaposi's sarcoma. The patient was repeatedly tested HIV negative, but HHV-8 genome was present in the tumour. Besides apparent ulcerative colitis, Kaposi's sarcoma was also present in the resected colon. After the operation the steroid therapy was tapered and the skin KS regressed spontaneously.

#### Conclusion

In summary to our knowledge this is the first proved HHV-8 positive patient who developed disseminated KS during the immunosuppressive treatment for UC. Our treatment policy was luckily successful. The patient in spite of his poor condition tolerated the surgical therapy well. After the ceasing of his steroid therapy the KS regressed. He remains to be well 32 months after surgery.

### **Cutaneous Metastases of Invasive Lobular Breast Cancer. Case Report.**

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Keywords: cutaneous metastases, breast carcinoma

Background: Skin metastases are encountered in 0,7-9% of all patients with cancer, so the skin is an uncommon site of metastatic disease when compared to other organs.

History: A 68-year-old woman presented with painful subcutaneous nodules throughout the body and itching. She had a medical history of the suspicion of tuberculosis 7 month prior, but the diagnosis was not confirmed. That time she had a mammography with a negative result. Results of skin biopsy showed features of non-specific dermatitis.

3 months later she developed swallowing difficulties and complained of severe weight loss, so further examinations were carried out. The results of skin- and endoscopic biopsies showed invasive lobular breast cancer metastases. Two weeks later the patient died.

Autopsy findings: autopsy revealed multiplex metastases almost in all organs, skin and bones. Due to the extreme cachexia the breast was difficult to examine macroscopically, so there was no sign of breast carcinoma, only the histology and the immunohistochemistry confirmed this diagnosis.

Conclusion: invasive lobular breast carcinoma often has distant cutaneous metastases, sometimes this is the first or only sign of this disease.

### **Inhibition of EGF receptor by gefitinib decreases growth and metastasis formation of human melanoma in preclinical model**

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Keywords: tyrosine EGFR, kinase inhibitor, gefitinib, metastasis, human malignant melanoma

The tyrosine kinase receptors, including the epidermal growth factor receptor family, have basic role in various cell processes: proliferation, survival and cell motility. Aberrant activation of the pathway is involved in different tumor types, but in malignant melanoma the expression and function of EGFR was contradictory according to other studies. Our group in 8 human melanoma cell lines previously showed different alterations in the extracellular domain of EGFR, while the intracellular tyrosine kinase domain was proven wild type. In our recent work by flow cytometry,

similar to the analysis at RNA level, the extracellular domain of EGFR protein was not present, moreover the majority of our cell lines expressed the intracellular domain. Using phosphospecific antibody, without exogenous stimulation, EGFR showed constitutive activity, which suggests that EGFR could be a potential target of EGFR-specific tyrosine kinase inhibitors. We have used two clinically available drugs, gefitinib and erlotinib to test the sensitivity of human melanoma cell lines. In our melanoma cell lines the IC50 of gefitinib was 5-10  $\mu\text{M}$ , while erlotinib was not effective ( $\text{IC}_{50} > 100 \mu\text{M}$ ). Furthermore, in human melanoma cell lines gefitinib induced significant increase in apoptotic rates at a concentration of 25  $\mu\text{M}$ . Using migration assays, we found that gefitinib-pretreated cells lost their migratory potential, which started at 0.1  $\mu\text{M}$  drug concentration and became highly significant at 10  $\mu\text{M}$ . In SCID mice i.p. treatment with 0.2 mg/kg/day and higher doses of gefitinib inhibited the metastatic colonization of WM983B human melanoma cell line in a spleen-liver model. Our preclinical data suggest that EGFR could be a potential target in the therapy of malignant melanoma.

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### **Cutaneous metastasis of internal malignancies: pathological aspects of 72 cases**

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Keywords: skin metastasis, internal malignancies

**AIM:** To define the distribution of skin metastases from primary visceral malignancies according to the site of the skin metastases and the primary tumors.

**METHODS:** Data were collected from the archives of the 2nd Department of Pathology, Semmelweis University from the period of 1993-2009. Records of skin metastases with known primary site were included. Primary tumors of the head and neck, breast, skin, and hematological malignancies were excluded. Only the cases independent to surgical procedures or local tumor progression were included.

**RESULTS:** 72 cases fulfilled the criteria of the selection. The diagnosis was confirmed by fine needle aspiration biopsy, surgical resection and autopsy in 34, 24 and 14 cases, respectively. The distribution of the location of skin metastases were abdominal (47%), head and neck (20%), anterior chest (17%), back (10%) and extremities (6%). One third of abdominal wall metastases represented as a solitary umbilical tumor (Sister Mary Joseph nodule). Abdominal skin metastasis originated mainly from colon cancer (50%) followed by gastric carcinoma (15%). Skin metastases of the head and neck region had more balanced distribution with lung- (18%), stomach- (15%), colon- (15%), kidney- and ovarian-cancer (12-12%) origin. Anterior chest metastases were most commonly of lung cancer origin (58%).

Regarding the malignancies with skin metastasis, the most common was colorectal- (36%), followed by lung- (26%), gastric- (10%), hepatocellular- (7%) renal cell- (7%) ovarian- (5%) and pancreatic carcinoma (3%). Colon cancer metastasise mostly to the abdominal wall (68%), but not to the umbilicle. However, rectal cancer has a distinct skin metastatic pattern: head and neck region is overrepresented (50%). In case of lung cancers anterior chest wall and head/cranial skin metastases could be detected most frequently (64%). Histologically, the majority of the cases were adenocarcinoma (62%). No sarcoma case was found metastatic to the skin. Immunocyto/histochemistry was performed in 21% of the biopsies/surgical resection specimens.

**CONCLUSION:** Skin metastasis is not a common feature of progression of visceral cancers, but sometimes it could be the first clinical presentation of the disease. Generally it develops as a late distant recurrence after resection of the primary tumor. In these cases fine needle aspiration could be used as a fast and non invasive diagnostic tool. Without known clinical history

immunocytochemical analysis could help to solve the differential diagnostic problems. The location of skin metastasis is not determined by the primary tumor itself. On the contrary to widely accepted dogma, that melanoma metastasise more frequently to skin, several visceral cancer types are also characterised by this unique organ metastasis pattern.

### **Cutaneous malignant melanomas can be differentiated from benign nevi by their collagen XVII protein expression which can also mediate antibody induced apoptosis**

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Molecular markers for differentiating malignant from benign melanocytic lesions of borderline phenotype would be essential in melanoma diagnostics. We found collagen XVII, a matrix anchoring transmembrane protein which is upregulated in carcinogenesis, in activated but not in resting melanocytes and tested its expression in 82 benign and 97 malignant melanocytic lesions using tissue microarrays. The cell residual aa507-529 region but not the matrix-anchoring shed ectodomain of collagen XVII was detected in primary and metastatic melanomas, melanoma cell lines and in atypical nests of dysplastic nevi, while melanocytic nevi were negative. The natural ligands of collagen XVII, laminin-5 and collagen IV were also missing from most melanomas. Collagen XVII immunoreaction stained spindle cell melanomas and showed partly overlapping profiles with those of S100, Melan-A and HMB45. Collagen XVII expression was statistically associated with melanoma proliferation (elevated Ki67 and cyclin D1 fractions and loss of p16<sup>ink4</sup>), Breslow thickness, Clark levels, vertical growth phase and invasion. Xenografts of HT199 melanoma cell line constitutively expressed collagen XVII in primary and metastatic neoplasms and circulating tumor cells, and displayed elevated levels in invasive versus adherent cells in culture. Antibody targeting the aa507-529 region of collagen XVII promoted apoptosis and cell adhesion, while inhibiting proliferation of HT199 cells. Accordingly, collagen XVII protein expression can differentiate melanomas from benign nevi and mediate invasion and antibody induced death of melanoma cells. *Supported by OTKA\_K 62758*

### **Spiradenocarcinoma-a case report**

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Keywords: spiradenoma, adnexal tumor

Clinical data: a 68 year old patient developed an exulcerated tumor on his lower arm. A biopsy was taken and after histological diagnosis the entire tumor was removed.

Macroscopy: A 14x7 cm skin ellipse containing an elevated mass of 6,5 cm in diameter, with uneven grey-brown surface, firm consistency. Next to the big lesion a small circumscribed grey-white nodule was also present.

#### Microscopy:

**Biopsy:** An exulcerated tumor showing nested-lobulated structure was seen. Tumor cells showed marked nuclear atypia with elevated mitotic activity. Cytoplasm was optically clear. Epithelial malignancy was diagnosed. Lipid stains could not be made of paraffin embedded blocks.

**Excision prepareate:** The big tumor showed similar appearance. Lipid stains were negative. Around the malignant mass small nodules of benign adnexal tumor were present. They were composed of small basaloid cells and bigger cells forming ductal structures. This features were consistent of spiradenoma. The benign component showed transition to the malignant. Spiradenocarcinoma was diagnosed. The excision was complete.

**Conclusion:** Spiradenocarcinoma is a rare malignant adnexal tumor mostly arising in a longstanding spiradenoma. Benign component often gives the clue for correct diagnosis of undifferentiated adnexal carcinoma.

### **A change of phenotype in the cutaneous lymphoma**

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Keywords: phenotype,change,skin lymphoma

Alterations in the phenotype of various tumors are well known and a different histopathology of the new(metastatic) tumors may cause some diagnostic difficulties.

Our case started with the infiltration in the tongue, which was diagnosed as a B-cell malignant lymphoma. Two years later a skin tumor appeared on the abdomen, presenting a different histology and a different immunophenotype. Genetic-molecular study confirmed the recidiv of the primary tumor but with a change of B cell phenotype into a myeloid-dentritic type( Pu1, MafB,CD 68,S-100 positivity). Pleural fluid presented large S-100+ cells.

Our case confirms the diagnostic difficulties in tumors with immunophenotype change and the need of the retrospective study of some tumor infiltrations.

### **Plasmoblastic lymphomas with skin involvement - A report of 2 cases**

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Keywords: plasmablastic lymphoma, skin involvement

**Introduction:** Plasmablastic lymphoma (PBL) is a newly characterized, rare, very aggressive subtype of non-Hodgkin's lymphoma arising mostly in immunodeficient patients with EBV or HSV8 infection. PBL by definiton consists of monoclonal immunoblast like CD20-, LCA-, but CD138+, VSC 38+ and either lambda or kappa positive.

**Purpose:** To report two cases of this rare disease with skin involvement and review literature data.

**Results:** A middle aged man 10 years after kidney transplantation developed an erisypelas-like eruption on his leg and scapular area. Skin biopsy showed a dense lymphoid infiltration with immunoblastic appereance. The cells were EBER ISH+, CD138+, CD45-, CD20-. Staging showed no involvement of the bone marrow and R-CHOP therapy was introduced in december 2007 but just in early 2008 the patient has dissapeared from the clinical follow up.



The other patient's first complaint was a pathological bone fracture caused by a bone plasmocytoma which later progrediated to multiplex plasmablastic skin lesions with corresponding immunphenotype. The PBL-infiltration propagated rapidly and the patient died in several months. At autopsy the leg skin and muscles were extensively infiltrated but no involvement of bone marrow could be found.

Conclusion: We reported two cases of the rare entity of PBL involving the skin. Our first primary cutaneous PBL case is a real rarity, while our second case may raise some problems with nomenclature, since patient's medical history began with a solitary plasmocytoma.

### **Subcutaneous synovial sarcoma with local recurrence and distant metastasis: a case report**

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Keywords: synovial sarcoma, subcutaneous region

#### Introduction

Synovial sarcoma (SS), a malignant mesenchymal neoplasm, occurs primarily in the periarticular regions of the extremities. SS is a deep-seated tumor. The skin and subcutaneous region is a rare location.

#### Material and methods

We studied the case of a 20 year old man with 20 months long progression of SS of his left shoulder, which started in the distal third as a subcutaneous mass, 4\*3\*2cm in size. Four months after complete resection of the tumor was diagnosed a local recurrence. There was a subcutaneous-intramuscular mass, 9\*6\*4cm in size, on the middle-distal third of the left shoulder. The patient received radiotherapy but the tumor metastased to bone and to lung 14 months later. The patient died 20 months after the tumor of left shoulder appeared.

#### Results:

Histologically, these tumors are classified into monophasic fibrous type of SS. This last tumor showed foci of epithelial differentiation. We performed immunohistochemistry for vimentin (diffusely positive), SMA (negative), protein S100 (negative), CD34 (negative), NSE (negative), bcl-2 (focally positive in the first tumor, and negative in the last), AE1/AE3 (positive in the epithelial cells).

#### Conclusion:

Our diagnosis was a subcutaneous synovial sarcoma.

### **Cellular dermatofibroma of the skin**

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Keywords: dermatofibroma, dermatofibrosarcoma protuberans, leiomyosarcoma

#### Introduction

Dermatofibroma (DF) is one most common dermal tumors encountered in dermatopathology practice. Recognition of some variants of DF is critical because they may mimic malignant neoplasms. Cellular DF is a most problematic variant of dermatofibroma.

#### Material and methods

The patient was 25 year old woman with small nodule on the lateral faces of distal phalanges of III-rd fingers. The tumor was removed by surgically.

#### Results:

The nodule was 0.8 cm in diameter. There was a circumscribed, non-encapsulated lesion centered in the reticular dermis. The tumor was composed of cellular fascicles of spindled cells with oval to tapered nuclei. Scattered mitotic figures were present but atypical mitotic figures were not seen. An admixture of inflammatory cells, a small focus of necrosis, scattered multinucleated giant cells and collagen bundles at the periphery of the tumor also were found. The tumor cells were non-immunoreactive with CD34, SMA, desmin and protein S100. These findings confirmed a diagnosis of cellular dermatofibroma.

#### Conclusion:

Cellular DF with a fascicular growth pattern can easily be mistaken for dermatofibrosarcoma protuberans or leiomyosarcoma, especially on small biopsies. Immunohistochemistry is an important part in diagnosis cellular DF.

### **A new therapy for the cutaneous side effects of EGFR inhibitors? - Case reports**

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Keywords: egfr inhibitors, side effect, skin

Introduction: Epidermal growth factor receptor (EGFR) inhibitors are used for the treatment of advanced, metastatic tumours in many malignancies. These agents are associated with numerous cutaneous adverse reactions like acneiform rash, sebostatic skin reactions and paronychia. These side effects are really important; they can impact patients' psychological status or social life and may lead to the discontinuation of targeted therapy. Usually the treatment of these skin lesions is topical and systemic antibiotics or topical steroids with well known side effects.

Curiosa® is composed principally of highly purified zinc hyaluronan, a proprietary complex of the essential skin constituent hyaluronan biomolecule and zinc. It is recommended as a skin- and consumer friendly support for the treatment of compromised skin (of different etiology) and capable of promoting physiological wound healing and preventing wound infection.

Method: Two metastatic colorectal cancer patient who were treated with EGFR inhibitors at the Radiology and Oncotherapy Clinic of the Semmelweis University Budapest had mild and severe skin reaction. They started using Curiosa® in December 2009 four to six times daily.

Results: The first patient had a sebostatic skin reaction on the perioral area. He used Curiosa® for five days without moisturizer, his symptoms did not change so his treatment was discontinued.

The second patient had widespread lesions; a skin rash of the face and the chest. After some days of using Curiosa® and moisturising cream she developed less itching, erythema. The number of new lesions reduced, and after three weeks of treatment she had just a mild erythema on her face and chest. She continues the treatment.

Conclusion: In the presented cases Curiosa® together with moisturising cream seemed to be effective in the treatment of EGFR inhibitor caused skin rash. We plan to enroll more subjects to have more experience with Curiosa® in this group of patients.

## **Skin manifestation of bilateral postirradiation angiosarcoma in a patient with bilateral metachronous breast cancer**

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Keywords: angiosarcoma, breast, cancer, irradiation

Introduction: Angiosarcoma is a rare, aggressive malignant neoplasm which in the breast, can occur de novo or following radiation therapy after surgical excision of breast cancer. It can recur locally if excised, and can also invade deeper breast parenchyma. The incidence of postirradiation angiosarcoma after breast cancer surgery is about 0,1%. The mortality rate is high.

Case: In 1992 a then 60-year-old woman was treated with conservative surgery and radiotherapy for infiltrating ductal carcinoma of the right breast. In her right breast 9 years later a reddish-livid skin lesion occurred. Following excision of the lesion, angiosarcoma was diagnosed with CD31 positivity and high Ki67 expression. The tumor progressed despite the therapy. Mastectomy was performed, but a few months later, in the scar of the right mastectomy the tumor reappeared. The recurrence was excised and plastic surgery had to be performed to cover the wound. Seven years after the right breast cancer was removed, she developed an invasive ductal carcinoma in her left breast. She was treated with breast conserving surgery and adjuvant radiochemotherapy. A bluish, ulcerated lesion showed up 2 years later around her left mamilla. She had 2 FNABs and 1 smear from the discharge with nonspecific results. Since the ulcerative lesion progressed, left-side mastectomy, with hygienic indication, was performed. Exulcerated angiosarcoma was diagnosed.

Conclusion: Skin manifestations of postirradiation angiosarcoma seem to be heterogeneous. This heterogeneity may cause diagnostic problems for both clinicians and pathologists. Despite the bilateral invasive breast cancer and bilateral locally advanced angiosarcoma, our patient was lost from follow-up only in 2006, 14 years after the first breast operation and 5 years after the diagnosis of postirradiation angiosarcoma.

## **Rare primary cutaneous lymphomas**

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Keywords: rare primary cutaneous lymphomas

Introduction: Rare primary cutaneous B and T-cell entities represents less than 10% of all primary cutaneous lymphoma cases and show wide range of diseases in respect to the biological behaviour and the histological, immunophenotypic features. Objective: To better clarify the clinical, histological, immunophenotypic and molecular characteristics of these rare entities. Method: We performed a retrospective study of rare primary cutaneous lymphoma cases diagnosed at our institute between 2000 and 2008. Clinical presentation, follow up data, histological and molecular findings are described.

Result: 2 cases of cutaneous IVLBL were diagnosed from skin biopsies and treated with rituximab + CHOP resulting complete remission. 9 cases of CD4+ small/medium T-cell lymphoma presented by localized skin nodules and had an excellent prognosis. 3 subcutaneous panniculitis-like T-cell lymphoma cases needed several biopsies for the definitive diagnosis, the course of the disease was relatively indolent. The initial course of 2/3 aggressive epidermotropic cytotoxic CD8+ CTCL cases

was similar to that of mycosis fungoides but eventuated in a highly aggressive disease with fatal outcome. One case of extremely rare, CD8+ lymphomatoid papulosis showed similar histologic features to the aggressive epidermotrop lymphoma with typical clinical behaviour. Conclusion: Detailed histological, immunohistochemical analysis, sometimes repeated biopsies are needed for the diagnostic work-up, but often the clinical course remains the cornerstone of the definitive diagnosis in these rare cases of cutaneous lymphomas.

### **Neglected skin tumors**

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Lesions on the skin surface are thought to be visible and easily recognizable for health-care professionals and even for amateur persons. However patients with advanced skin tumors are presented in the dermatology practice even at the beginning of the 21<sup>st</sup> century. Causes of the delay can be numerous. Patients could fear from the diagnosis and the treatment or they and the relatives can become accustomed to the usually slowly growing tumor. Old age, low social milieu and impaired hygienic culture also can be mentioned.

Authors collected more than 20 neglected skin tumors in the last nine years and discuss the possible causes of the default diagnosis. The high number of these advanced neoplasms highlights the need for more effective health education. The early diagnosis and treatment could result in effective and often curative treatment in these patients.

### **Melanocytic skin lesions with differential diagnostic difficulties**

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Diagnosis of melanocytic skin lesions constitutes large proportion of dermatopathology practice. Banal melanocytic nevi, dysplastic nevi and melanomas are the most frequently seen entities. However rare forms appear from time to time with distinctive clinical and histological picture. It is very important to know the special, rare forms of nevi and melanomas in order to differentiate and diagnose them properly. These infrequent lesions can be nevi of special sites, clonal, deep penetrating, and Spitz nevi. Among melanomas the childhood and spitzoid forms or heavily pigmented melanomas (animal type melanomas and malignant blue nevi) could cause differential diagnostic difficulties both clinically and histologically. The rare forms of melanocytic lesions in the past few years of our practice are listed and briefly summarized.