

# VIRCHOWS ARCHIV

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**Abstracts**

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cases of dermatofibroma; 8 cases of dermal scars; 5 cases of deep-seated fibrous histiocytoma. The antibody against the N-terminal portion of WT1-6F-H2, was used.

**Results:** The majority of dermatofibrosarcomas protuberans (54 out of 57), exhibited cytoplasmic staining for WT1. The immunohistochemical expression was diffuse, heterogeneous or focal, respectively, in 75%, 15% and 6% of cases. With the exception of 4 cases showing a weak to moderate staining in different areas of the same tumour, the staining intensity was diffuse and strong. All recurrent tumours showed diffuse and strong WT1 cytoplasmic immunoreactivity while the fibroblasts of the associated scar tissue were negative. None of the other tumour or tumour-like, bland-looking spindle cell lesions examined, were WT1-positive.

**Conclusion:** WT1 is an ancillary immunomarker, exploitable in combination with CD34, in confirming the diagnosis of dermatofibrosarcoma protuberans, including in the recurrent tumours.

#### PS-04-030

##### The relationship between BRAF mutation status and certain clinical and pathological features in melanoma

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**Background & objectives:** BRAF mutation in melanoma predicts response to BRAF and MEK inhibitor therapy. This study investigated the relationship between clinicopathological characteristics of primary and metastatic melanomas with BRAF mutation status, in cases sent for testing in the period 2012-2016.

**Methods:** A total of 519 samples were identified. Patient age, gender and melanoma reporting dataset items were gathered from the histology report. Each variable was analysed against BRAF mutation status.

**Results:** 58% of patients were male and 42% were female with similar mutation rates for both (37% and 38% respectively). 40% of the samples were primary tumours, 57% were metastases and 3% were recurrences. 74% of mutations were v600E and there was no significant difference in type of mutation between primary and metastatic tumours. BRAF mutations were more common in metastases than primary tumours (41% and 33% respectively). BRAF mutation was significantly associated with superficial spreading and nodular histological subtypes; younger age; and location of metastasis. High rates of BRAF mutation were seen in brain metastases (78% positive). BRAF mutation was not associated with mitotic count, Breslow thickness, or ulceration.

**Conclusion:** BRAF mutation in our cohort is more common in younger patients and in metastatic tumours, in keeping with the published literature. We found high rates of mutation in metastasis to the brain, the reasons for which are unclear.

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#### PS-04-032

##### A case series of granular cell tumour with malignant potential; a rare cutaneous tumour

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**Background & objectives:** Granular cell tumour (GCT), is an uncommon soft tissue neoplasm of neural in origin. These tumours are usually slow growing and benign. The malignant counterpart is extremely rare in the skin with a potential to metastasize.

**Methods:** Histologically, this can be diagnosed using the Fanburg-Smith criteria. We report a series of 3 cases with a histological diagnosis of granular cell tumour with malignant potential and evaluate the clinical presentation, investigations and progress.

**Results:** Case1-7 year-old boy presents a growing lump on his right shoulder. Histology revealed an incompletely excised GCT with atypia. Wider excision was consistent with a malignant GCT. Case2- 67 year-old female with firm nodule on her abdomen. Excised lesion revealed an atypical GCT. Consensus was to manage as a potentially malignant GCT. Case3-72 year-old man presents with a rapidly growing nodule on his right eyebrow. Excision biopsy favoured malignant GCT.

**Conclusion:** Clinical diagnosis of GCTs are difficult and should be included in the differential diagnoses of head and neck cutaneous lesions. Clinicians should be aware that atypical and malignant variants exist. There is some degree of pathological debate regarding classification of these lesions, especially in borderline atypical/malignant cases. There is a lack of consensus regarding the optimal management of this tumour but in our experience, we recommend a wide local excision for all GCTs and discussion at the multi-disciplinary team level.

#### PS-04-033

##### Ultraviolet impact on rat skin

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**Background & objectives:** The aim of our study was to establish a >model imitating of UV-B (wavelength peak is 311 nm) therapy for rat's skin and to find match macroscopical and following histological skin changes including melanocytes spreading and melanin distribution.

**Methods:** We used 6 laboratory rats with white and 12 with black coating applying UV-B light source (9 W power) during minimal erythema dose. The changes were studied by macroscopical and histological methods.

**Results:** In 3 of 18 of observations transitional symptoms looking alike, actinic keratosis occurred (1 black, 2 white rats). Other passing side effects (exfoliation, erythema) occurred and were successfully removed with exposure correction. Typical histological changes (chronic inflammation, hyperkeratosis, epidermal cells dystrophy) are more noticeable in rats with side effects, but still present in the rest of rats. Expected changes of melanocytes and melanin distribution could not be displayed with routine histological staining.

**Conclusion:** UV-B therapy model is a valid method to investigate it itself or to investigate chronic UV-exposure effects. The typical histological effects following UV-B exposure and their depending on macroscopical changes were found.

#### PS-04-036

##### Prognostic value of tumour-infiltrating lymphocytes and mitotic rate in melanoma

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**Background & objectives:** The use of immunohistochemistry to assess the number of CD3 and CD8 lymphocytes and an objective assessment of mitotic index, using computer-assisted image analysis allows for a more accurate assessment of the values of these parameters.

**Methods:** Our study included primary tissues from 88 non-consecutive cutaneous melanoma patient who were retrospectively examined at Maria Sklodowska-Curie National Research Institute of Oncology, Gliwice in 2005-2008 years. We used to determine the mitotic index Phosphohistone H3, Rabbit Polyclonal Antibody (PHH3) and to determine TILs :Polyclonal Rabbit Anti-Human CD3 and Monoclonal Mouse Anti-Human CD8.

**Results:** Statistically significant differences were found in the number of CD8 lymphocytes depending on the depth of the infiltrate ( $p < 0.01$ ), in the number of lymphocytes depending on the stage ( $p < 0.05$ ). Differences in lymphocyte counts between T1 and T3 ( $p < 0.05$ ) and T1 and T4 ( $p$