

**Objective:** In forensic medicine, there is often a need to determine the age of the bruises in order to establish the time of injury. The objective of this study was to determine histological features of 5-day-old bruises.

**Material and Methods:** Ten samples of normal, healthy human skin were used as a control group and 10 samples of 5-day-old bruised human skin, were used as an experimental group. Skin tissue was processed by a routine histological procedure using paraffin sections, stained with hematoxylin-eosin and Prussian blue method of dyeing, evaluated by light microscope enhanced with a digital camera.

**Results:** Histological analysis of bruised skin samples showed ruptured small blood vessels, extravasated erythrocytes and dilated fibrous septa in the connective tissue. In the area of bleeding, cell infiltration was noticed, presented with few neutrophils, which were not seen in the control group samples, and plenty of hemosiderin containing macrophages. Rare macrophages were seen in the skin samples from the control group, but they did not contain hemosiderin.

**Conclusions:** In 5-day-old bruises, cell infiltration of the bruised skin with hemosiderin containing macrophages is a main histological hallmark which offers data for establishing the time when injury happened.

#### PS-06-04

##### **The depth of the stromal invasion of cutaneous squamous cell carcinoma in correlation with tumor size and tumor differentiation**

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**Objective:** The aim of this study was to determine the correlations between stromal invasion and the grade of differentiation as well as tumor's size in squamous cell carcinoma of the skin (SCC).

**Material and Methods:** Surgically resected skin specimens from 30 patients with cutaneous SCC, were included in the study. The hematoxylin-eosin stained histological sections containing the tumor tissue and the surrounding normal skin prepared from routinely processed paraffin blocks were analyzed by light microscopy. In each analyzed SCC, the degree of histological differentiation (G) and the postoperative tumor status (pT) of the neoplasm according to TNM classification (AJCC) were determined. The depth of stromal invasion in each case was measured on low power field (x40) using morphometry software. The distance from the basement membrane of the epidermis to the deepest invasive neoplastic focus of the tumor and the obtained values are presented in absolute numbers expressed in micrometers.

**Results:** The SCC in 21 (70%) cases was classified as pT1 and in 9 (30%) cases as pT2 category tumor. Twelve tumors (40%) were classified as well (G1), 13 (43.3%) as moderately (G2), and 5 (16.7%) as poorly (G3) differentiated tumors. The depth of stromal invasion was ranging from 1561.2  $\mu$ m to 13000.1  $\mu$ m. A statistically significant difference was found between the depth of invasion in tumors belonging to different pT category (Mann-Whitney U test,  $p=0.003034$  for pT1 and pT2), and different grade (Kruskal-Wallis test,  $p=0.00008$  for G1, G2, G3).

**Conclusions:** The depth of stromal invasion was higher in larger SCCs with a maximal diameter greater than 2 cm (pT2) and in poorly differentiated (G3) tumors.

#### PS-06-05

##### **Basal cell carcinoma in the facial region: easy pathohistological diagnosis, but reconstructive challenge**

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**Objective:** Basal cell carcinoma (BCC) is the most common malignant skin tumor with 80% percent of it affecting the facial skin. Although this tumor rarely metastasizes, it can cause significant destruction and disfigurement by invading surrounding tissues. Even though the pathohistological diagnosis is not usually a problem, it's excision and reconstruction in the facial region can sometimes be challenging.

**Material and Methods:** All the patients were operated at the University Clinic of Plastic and Reconstructive Surgery in Skopje and had BCC in the facial region. They were treated by standard surgical excision using surgical blade or electrocautery. The postoperative defects were closed in a single stage procedure using local skin flaps (transpositional, rotational, advancement, island flaps) and skin grafts. The specimen were evaluated for the pathohistological diagnoses at the Institute of Pathology in Skopje.

**Results:** The postoperative complications rate was 2-3%. The follow-up period was 5 years. The recurrence rate in that period was less than 5%. Functional and cosmetic outcomes were satisfactory.

**Conclusions:** Considering the basal cell carcinoma in the facial region, the main effort falls on adequate tumor excision and subsequent reconstruction.

#### PS-06-06

##### **Isolated endobronchial Langerhans cell histiocytosis in a child: surprising diagnosis for pediatric oncologists**

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**Objective:** We aimed to present the first case to our knowledge of isolated endobronchial Langerhans cell histiocytosis (LCH) without parenchymal lesion in an 11 year-old child.

**Material and Methods:** A 11-year-old girl was admitted with acute hemoptysis. Computed tomography of thorax revealed a mass on distal trachea extending to the right main bronchus. Rigid bronchoscopy revealed an endobronchial lesion which originated in and obstructed right main bronchus and protruded to the trachea. Multiple punch biopsies were performed.

**Results:** On microscopic examination, there was cellular infiltrate composed of histiocytes, eosinophils, lymphocytes and plasma cells in a fibrotic background. Histiocytic cells showed strong reactivity for