

metastases were observed in 27 % of cases each. Treatment was surgical in 7 cases, radiotherapy or chemotherapy in 1 case.

**Conclusion:** PMM is a rare and aggressive tumor. Its symptomatology is non specific. Definitive diagnosis is achieved after pathological analysis. Diagnosis is often delayed.

#### OFP-02-007

##### **Quality control of deaths by pathologists: A systematic approach for improving death certificate completions, notification procedures and death statistics**

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**Objective:** In order to improve the quality of death certificates and the notification procedures in deaths of presumed unnatural causes, all deaths at our institution have since 2008 been reviewed by two pathologists.

**Method:** Death certificates and medical records were examined continuously. Clinicians were contacted immediately if death certificates had illogical sequences of underlying death, or if cause of death was not in accordance with the clinical history. Changes were suggested and assistance in resubmittance offered. The Quality department was notified if deaths by unnatural causes (of any kind) were suspected, and the clinicians contacted if notification procedures had not been followed.

**Results:** From 2008 to 2012, illogical death certificates decreased from 36 % to 20 %, certificates not in accordance with medical records from 24 % to 14 %. Unspecified “garbage” diagnoses were reduced by 79 %. Notification procedures in presumed unnatural deaths improved from 51 % to 86 %.

**Conclusion:** A centralized and systematic control of deaths improved the quality of death certificates and the handling of deaths by presumed unnatural causes. Being experienced in evaluating causes of death, having regular working hours and proximity to the morgue, the pathologists are best suited to perform this kind of quality control in hospitals.

#### OFP-02-008

##### **Choice of method for manual Ki-67 determination**

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**Objective:** Ki67 is a proliferation marker important for classification of malignant tumours such as breast carcinomas. However, guidelines for determination of Ki67 proliferation indices are heterogeneous. The aim of this study was to examine the current practices and interlaboratory variability of Ki67 scoring.

**Method:** As part of the NordiQC international immunohistochemical external quality assessment scheme, 370 laboratories were asked to score proliferation indices on 20 Ki67 stained breast carcinomas on a virtual slide. Additionally, participants were asked to elaborate on the method used for obtaining the indices: Method (‘Eyeballing’ or ‘manual counting of X cells’), Area examined (‘Hot spot’ or ‘Overall average’) and whether moderate and weakly stained tumour cells were counted as positive.

**Results:** 139 laboratories participated. Estimated proliferation indices varied greatly. For tumours with low Ki67 proliferation index, estimated indices varied between 0 and 10 %, while results for high expressing tumours varied between 40 and 100 %. Eyeballing was the preferred method (65 %). Less than 40 % examined ‘hot spots’ as opposed to overall average.

**Conclusion:** The need for standardization of both staining and interpretation of Ki67 immunohistochemical stains is underlined. Digital image analysis may be an important tool to accomplish this.

#### OFP-02-009

##### **Initiation of a tumor tissue-bank in Malawi**

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**Objective:** Cancer in Africa has become a serious health problem with high mortality rates. Knowledge about epidemiology, pathogenesis and genetics is scarce. Pathology plays an important role in diagnostics and in cancer research, but the service is barely available. We initiated the project of building a tumor-biobank in Blantyre/Malawi, as a basis of structured, significant tissue-based research targeting cancer in sub-Saharan Africa.

**Method:** Routine diagnostics in Blantyre is based on formalin fixed paraffin embedded (FFPE) probes and allows diagnostic standard staining (HE, PAS, ZN). Application of further molecular analysis for routine or research is hampered by the lack of standardization of pre-analytic tissue handling (e.g. variable fixation times, unclear fixation agents).

**Results:** A basic approach for a biobank in the low resource setting encompasses: A) Structuring and standardization of tissue processing, allowing FFPE tissue to serve as a firm base for scientific projects. B) Evaluation of alternative fixation agents, which may offer alternatives for robust tissue preservation. C) Establishing a clinical data bank. D) Ethical issues (e.g. informed consent, cultural aspects).

**Conclusion:** Establishing a tissue-biobank in sub-saharan Africa is a valuable step towards tissue-based research for gaining insight into cancer in the African population, and a prerequisite for subsequent focused analyses (e.g. HPV-analyses).

#### OFP-02-010

##### **The preliminary results of a residency satisfaction survey: “To love and not to love Pathology”**

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**Objective:** Pathology tends to be a less known discipline among medical school graduates. Multiple factors contribute to career choices such as individual’s personality, skills, academic and socioeconomic expectations. Unfortunately, the number of the residents who are not satisfied with their job is considerable. We conducted a survey to evaluate pathology residents’ perspectives on Pathology.

**Method:** The 42 item-survey was delivered via a web-based link and questioned participants’ personal and institutional background, workplace, training conditions and job satisfaction.

**Results:** Survey was answered by 101 participants from Turkey ( $n=76$ ), Europe ( $n=16$ ) and continental America ( $n=9$ ), 78,2 % of whom were female. Mean age was 29,7 years-old (range 25–40). Mean daily work and weekly grossing-hours of the participants were  $10.1 \pm 1.7$  and  $12.9 \pm 5.1$  h, respectively. Eighty-two percent of the participants were happy that they chose Pathology and 72,2 % fore-saw a bright future ahead. Overall working conditions of their department were dissatisfying for 8.9 % of the participants. Most of the participants wanted to have better structured residency training programs and to interact more with experienced pathologists.

**Conclusion:** The study aims to provide an insight to residency period and is presented to increase the philosophical interest on the subject as well as announcing for more participants.

Sunday, 1 September 2013, 17.00–19.00, Auditorium II

**OFP-03 Oral Free Paper Session Digestive Diseases Pathology I**

#### OFP-03-001

##### **Mutational analysis by next generation sequencing of preneoplastic intestinal metaplasia in patients with Barrett esophagus from endoscopic samples**

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