

Pathology teaching is important discipline of the training of qualified MD specialists which is traditionally carried out in the departments of pathology of the Medical Faculties of classical Universities.

Methods: The collection of history data was carried out by archival search.

Results: The Moscow University was founded in 1755. Teaching of pathology began in 1769 (Veniaminov P.D.). Further development Pathology in Russia is associated with Polunin A.I., Klein I.F., Abrikosov A.I. In 1930, Medical Faculty was transformed into the 1st Moscow Medical Institute and to which university clinical campus builded in 1897 was transferred. Medical education in Moscow University was restored 62 years later (1992). Currently, a course of pathological anatomy is taught at the University Clinic on basis of Clinical Pathology Department.

Conclusion: The University Clinic has qualified specialists and modern equipment. Biopsy and surgical materials, modern histological, histochemical, immunohistochemical, molecular, genetic, ultrastructural methods are widely used both for education and science purposes which ensures the implementation of the unity of education, science and clinical practice.

PS-23-009

The history of research of placenta

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Background & Objectives: The history of research of placenta is important aspect in obstetrics

Methods: Work with archive, materials, textbooks and monographs

Results: The first mention of placenta was revealed in archives of Egyptian pharaoh Amenhotep IV. T. Langhans explored histological structure of placenta and the microscopic period of placenta's research was begun. Active research of this organ was in the end of XIX century (Schatz F., V. Becker Bar P., Wilson T.). The ultramicroscopic period in the research of placenta begun in the second part of XX century. The separate science called "placentology" was formed.

Conclusion: The study of placenta allows to make a basis for correct diagnosis, correction and treatment of pathological conditions in obstetrics for preservation.

PS-23-010

Renal stone disease in an XVIII century mummy from Popoli, central Italy

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Background & Objectives: A natural, well-preserved mummy belonging to an anonymous 35-40 years old male was found in a crypt beneath the Church of the Holy Trinity in Popoli, central Italy. Fine clothes and burial location suggested high social status and an important role in the church community. Probably, he was a nobleman, member of the congregation of the Holy Trinity. Artifacts helped in dating back the individual to the early 1800's.

Methods: The body was secured to a cardboard layer by a plastic film and recovered from the crypt to be submitted to visual inspection, X-ray

examination, and CT scanning. A left abdominal stone was removed by videoendoscopy and investigated with binocular stereomicroscopy, microcomputed tomography, scanning electron microscopy with microanalysis, and X-ray diffraction analysis.

Results: The ovoidal mass measured 22x16x15 mm. External surface showed small superficial spherical buds, whereas internal structure detail revealed a central nucleus of sharp-edged crystals and concentric laminations of similar density values. Chemical elements were: C, O, N, Ca, P, K, S, Cl, Na with different distribution within inner and outer surfaces of the stone. Compositional analysis revealed calcium oxalate monohydrate (whewellite) (90%) and calcium phosphate (hydroxylapatite) (10%).

Conclusion: The stone composition supports the hypothesis of high animal protein intake by the subject, confirming that he belonged to high social class. The co-existence of significant dental pathologies, without major arthritic changes confirmed a life free from extensive labor. The cause of death could be related to infectious complications of renal urolithiasis and hydronephrosis.

Wednesday, 11 September 2019, 09:30 - 10:30, Agora 3
PS-24 | Pathology in Favour of Developing Countries

PS-24-001

Comparison of HER2 status in breast cancer using fluorescent in situ hybridisation and immunohistochemistry at National Hospital Abuja, Nigeria - a case for alternate testing in developing countries

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Background & Objectives: Breast cancer patients that are positive for *HER2* will benefit from targeted therapy. Most centres in Nigeria utilise only immunohistochemistry (IHC) in determining *HER2* status, as it is cheaper, quicker and more widely available. Cases that are IHC equivocal present a treatment dilemma, as there is currently no centre in the country that provides alternate test to assess these tumours. The objective is to compare *HER2* expression by IHC with *HER2* gene amplification by fluorescence ISH (FISH).

Methods: Clinical information was obtained from request form. Haematoxylin and Eosin stained slides were evaluated for histologic type and tumour grade. Dual probe FISH and standard *HER2* IHC were performed on formalin fixed paraffin embedded tissue blocks at a UK laboratory and scored as per UK guidelines.

Results: Immunohistochemistry was done on 91 samples. The *HER2* +3 tumours accounted for 10% (n=9), the +2 (equivocal) tumours were 11% (n=10) and the negative 0/+1 tumours were 79% (n=72). FISH was done on 20 samples (19 +3 and +2 tumours by immunohistochemistry and 1 negative sample), however the test failed in 5 cases. By FISH, 74% (n=11) of the tumours were amplified, with 83% (n=5) of the IHC +3 cases and 75% (n=6) of the +2 IHC tumours showing gene amplification.

Conclusion: This study shows that by FISH, a significant percentage of equivocal cases on IHC had gene amplification and these cases should benefit from anti-*HER2* therapy. Further work into improving the pre-analytical factors such as fixation is needed to minimise the test failure rate.

PS-24-002

Pathology services in a low resource setting: University of Abuja Teaching Hospital, Abuja, Nigeria experience

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