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Book of Abstracts

SIGNIFICANCE OF CXCL3 IN RENAL CELL CARCINOMAS

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There was a significant difference of CXCL3 chemokine ligand expression in renal cell carcinoma and its adjacent tissues, and a significant correlation between CXCL3 expression and metastasis in renal clear cell carcinoma. The CXCL3 mRNA level was detected by RT-PCR. The CXCL3 expression level in renal cell carcinoma was increased significantly compared with adjacent tissues ($P = 0.000$); CXCL3 expression in tissues adjacent to carcinomas was significantly higher in grade III renal clear cell carcinoma than in grade II (P was no relevance between CXCL3 expression level and pathological parameters of renal clear cell carcinoma). CXCL3 expression level was positively correlated in renal clear cell carcinoma, which may be a process of renal clear cell carcinoma metastasis.

Key words: project of the introduction of talent (2002) from Hainan Medical University.

THE PALATINE FORAMEN: CLINICAL PARAMETERS AND SIGNIFICANCE

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description of localisation of a greater palatine foramen is important since the intraoral anaesthesia is opening. The aim of this investigation was to study the relationships of the greater palatine foramen structures (median palatine suture, position, incisive fossa and molars).

Studied 37 dry skulls (23 females and 14 males) placed in a horizontal position with bases of the maxilla processed in the ImageJ software. The greater palatine foramina were detected by

Measurement of greater palatine foramen from the maxilla was 15.85 mm on the right and 16.11 mm on the left to the posterior edge of bony palate, 2.01 mm and 2.01 mm. Statistical significance comparison of the angle between the incisive fossa and median palatine suture: percentage of skulls (82%) had a greater angle at the level of the third molar. Lesser angle was observed on the 13 skulls. The largest angle was one small opening (44%).

Conclusion: The palatal angle showed statistical significance in relation to the side of the skull. The greater palatine foramen is most often located at the level of third molar. The largest number of examined bony plates had one small opening.

P12

FEATURES OF ANGIOGENESIS IN MYOCARDIAL TISSUE DURING CHRONIC EXPOSURE OF PESTICIDES

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The rapid development of the study of the cardiovascular system in the last decades, in addition to other fields of science addresses a number of issues. Nowadays, anatomy of the coronary arteries of the heart, angiogenesis in the myocardium and the changes in them due to environmental factors interest to scientists.

Therefore, our study of pesticides often used in the agricultural production we conducted study of heart tissue histologic and immunohistochemical methods for the study of cardiac tissue by forming a chronic model of poisoning by giving mice per os for 2 months. In this study portion of the research project, the vascular endothelial growth factor (VEGF) indices of the left ventricle in the myocardium were compared with the control group.

The result of the study shows that there was no significant change in pesticide poisoning compared the control group, both blood vessels were small and densities remained unchanged. In the experimental group, the blood vessels in subepicardial layer were significantly higher (1.5 times) than in the control group. Meanwhile, VEGF-expressing cells were identified in two groups (positive). VEGF-expression in conjunction with control group in the study group was found in vascular vessels muscle cells except endothelial cells. Absence of clear changes in comparison with the control group in myocardial tissue poisoning with pesticides may be indication adaptation reaction to that environment. However, an increase blood vessel density in subepicardial part can be attributed to the appearance of VEGF-expressing cells in accordance with the depth of blood vessels and the mechanisms of the emergence of new blood vessels leading endothelial layer permeability or cellular migration.

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DISTRIBUTION OF THE PERIKARYA OF THE MOTOR NEURONS OF GENIOHYOID MUSCLE IN RATS

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Introduction: The geniohyoid muscle is involved in deglutition and respiration, moving the hyoid bone forwards and upwards and assisting in depression of the mandible. In the literature data regarding the location of its motor neuron bodies are contradictory. The objective of this study is to determine localization of the bodies of the motor neurons of the geniohyoid muscle in rats using horseradish peroxidase (HP) technique.



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Material and Methods: Right geniohyoid muscle was exposed in nine Sprague-Dawley rats under anaesthesia, and 20-50 mcl of 30% solution of HP was injected into it. After 48 hours normal saline, 1.25% glutaraldehyde and 1% buffered paraformaldehyde were perfused through the left ventricle at room temperature, followed by perfusion of the 10% buffered sucrose at 4°C. The medulla oblongata and first cervical segment of spinal cord were sampled, immersed in the 10% buffered sucrose at 4°C for 24 hours. Serial transverse 60 mcm sections were cut in the cryostat and stained by tetramethyl benzidine-HP method.

Results and Conclusion: Perikarya of the motor neurons of the geniohyoid muscle labelled by HP were mainly discovered in the ventral part of the right hypoglossal nucleus in the upper two-thirds of the closed part of the medulla oblongata, as well as in the ventrolateral subnucleus of hypoglossal nucleus in the lower one-third of the closed part of medulla oblongata, and in the dorsomedial part of right anterior grey column at spinomedullary junction. Our results specify data regarding location of the bodies of the geniohyoid motor neurons in mammals.

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ANGIOGRAPHIC STUDY OF THE ANATOMICAL CHARACTERISTICS OF THE CORONARY ARTERIES IN COLOMBIAN POPULATION WITH RISK FACTORS FOR CARDIOVASCULAR DISEASE

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Introduction: Anatomical variations of coronary arteries are related with ischemic myocardial, arteriosclerosis and sudden death, therefore is necessary that the doctor knows the origin, journey, branches and endoluminal aspects of coronary arteries.

The aim was to determinate the relation between anatomical characteristics of the coronary arteries by angiography and risk factors for cardiovascular disease in Colombian population.

Material and Methods: In 200 coronary angiographies (141 male and 59 female), the origin of the right coronary, left coronary, anterior interventricular and circumflex arteries and coronary dominance were analyzed and coronary permeability in their 29 segments was evaluated. Statistics methods for the relation between anatomical coronary characteristics and risk factor for cardiovascular disease were used.

Results: There were variations in the origin of coronary arteries (3%), mostly for right coronary artery in male. Coronary dominance most frequently was right. Ramus intermedius was present in 9.5%. Anterior interventricular branch was occluded mostly in male ($p=0.926$). Risk of vascular disease for circumflex branch is mostly for female and it was related with smoking. Segment coronary arteries mostly occluded were 13 and 18.

Conclusions: Anatomical characteristics of coronary arteries of Colombian population are similar with other population (European and Asian).

P23

LACTATE AND HIGH INTENSITY INTERVAL TRAINING (HIIT) RAISE LEVELS OF STEM CELLS IN THE PERIPHERAL BLOOD OF PATIENTS WITH METABOLIC DISEASES AND IN MURINE MODELS

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Introduction: HIIT has had a great impact in improving health and optimising physical performance in patients. In HIIT models, lactate is used as an indicator of the anaerobic metabolism in blood. Lactate raises the phenotype of stem cells (SC) in cell cultures. The aim of this study was to demonstrate that the effect of HIIT on stem cells in peripheral blood is produced by a rise in lactate levels.

Methods: Patients with metabolic alterations, BMI>25 and sedentary life, were subjected to HIIT on static bicycle with fatigue after 1 minute, followed by 2 minutes of rest, repeated 10 times, for 1 month. Sprague Dawley rats were subjected to swimming HIIT daily with weight attached to tails, for two months. The lactate levels were measured. We also assessed the effect of lactate injections [10mmol/l], concentration equivalent to the maximum observed in the HIIT group in rats which did not do any exercise. The SC phenotype and quantification were determined by flow cytometry.

Results and Conclusion: In the murine model, HIIT by swimming exercise effectively increases lactate. The rise in lactate due to HIIT was significant when compared to the controls, and was correlated with an increase in stem cells, principally mesenchymal cells, in peripheral blood in both patients and the murine model. The lactate injections also produced an increase in stem cells, and lactate may therefore be an inductive signal rather than a metabolic product. This explains why HIIT exercise could be used as a model for regenerative treatment with endogenous adult stem cells.

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COMPARISON OF THE INHIBITORY CORTICAL SYSTEM IN THE TRANSITORY NEO-ALLO-CORTICAL REGIONS

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Aims: This study describes interneuronal population expressing calcium binding proteins calretinin (CR) and parvalbumin (PV) in the perirhinal (PRC) and retrosplenial (RSC) cortex of the rat. These two cortical areas differ strikingly in their connectivity and function, which could be caused also by different structure of the interneuronal populations. Having a precise knowledge of the cellular composition of any cerebral area is important for understanding some pathological conditions, like generating and spreading of epileptic activity.

CERTIFICATE OF PARTICIPATION

We hereby certify that

Prof. Dr. Marina KAPITONOVA

UNIMAS, Malaysia

has participated in the

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