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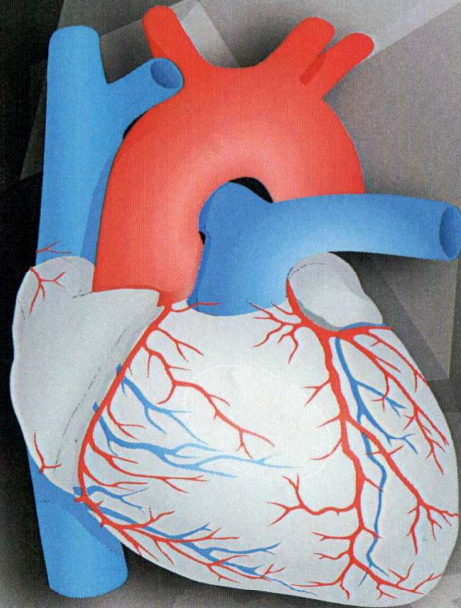


7th ISCAA
Bratislava 2015



7th International Symposium
of Clinical and Applied Anatomy (ISCAA)

Bratislava, Slovakia September 17–20, 2015



BOOK OF ABSTRACTS
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Comenius University in Bratislava
Faculty of Medicine
Institute of Histology & Embryology

ISCAA 2015

The 7th International Symposium of Clinical and Applied Anatomy

BOOK OF ABSTRACTS

Under the Auspices of

prof. RNDr. Karol Mičieta, PhD.
Rector of Comenius University in Bratislava

prof. MUDr. Juraj Šteňo, DrSc.
Dean of Faculty of Medicine, Comenius University in Bratislava

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September 17 – 20, 2015

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POSTER PRESENTATION

**COMPARATIVE PRENATAL EFFECTS OF SEX STEROIDS
ON ANOGENITAL DISTANCE OF THE OFFSPRING
OF LABORATORY MICE**

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The search of quantitative criteria of the reproductive activity of offspring is an actual problem in modern reproductology. Steroid hormones have significant morphogenetic effects on the prenatal formation of the reproductive system. In recent years, as one of the quantitative criteria of such effects used anogenital distance (AGD). In male individuals, including human, this distance is about two times higher than in females'. The aim of this study was to determine of the prenatal exposure to sex steroids on the value of AGD in laboratory mice. Experiments include the observation on 200 white laboratory mice, whose average age was 12 weeks. On the 12th day of gestation to pregnant females intramuscularly was injected drugs steroid hormones (testosterone propionate and sinestrol) in therapeutic doses that do not cause abortion. The experimental group of animals received sterile olive oil in a volume equivalent to the volume of drugs administered of experimental group. Measurement of AGD in the offspring produced with the use of electronic calipers at the age of 12 weeks. When comparing the values AGD of animals, which received steroids, male's animal's statistically significant differences in performance were found, but there is dependently from kind of steroid, but not dose-dependently. In females, statistically significant differences in the values of the AGD found between the control group and the experimental group, but these differences were dose-dependently, but not steroid-kind-dependently. It is assumed that such sex-specific differences in the prenatal effects of hormones on AGD due to their metabolism in the placenta.

Keywords: Reproductive system, Sex steroids, Anogenital distance, Prenatal development

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