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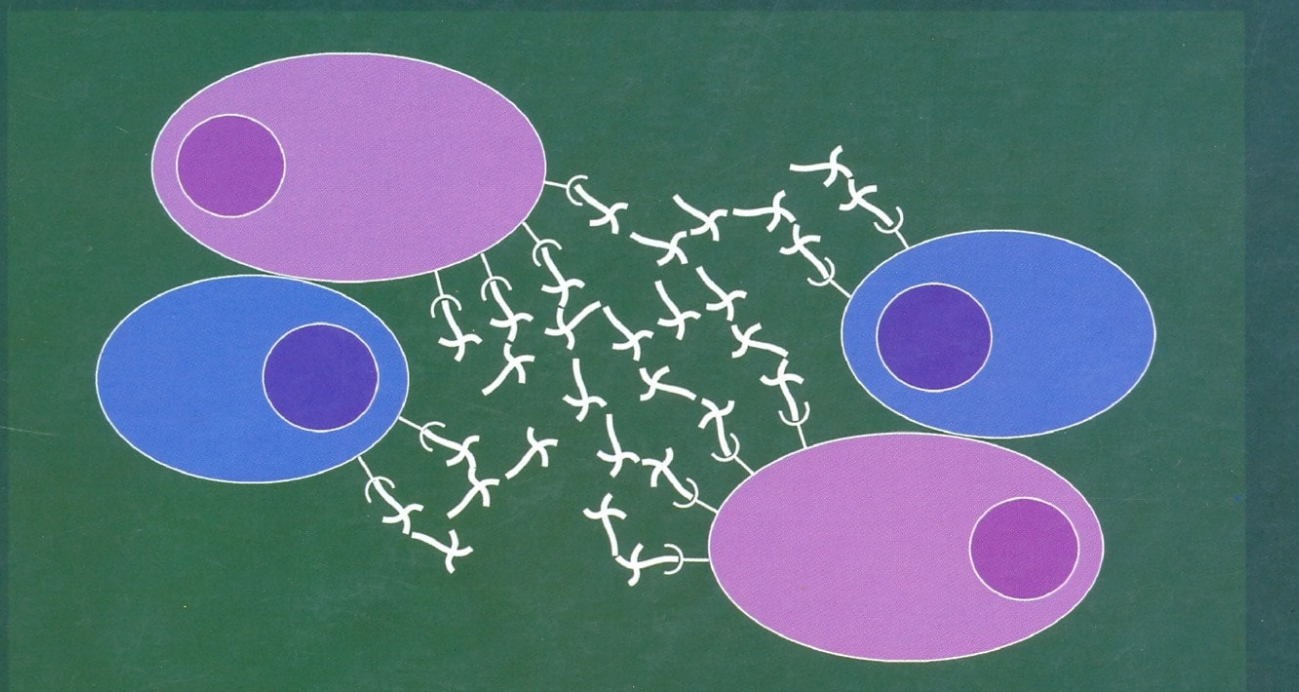

A65

THE PRESENCE OF A SINGLE MITOCHONDRIAL DERIVATIVE IN SPERMATOZOA OF TRICHOPRIA sp. (HYMENOPTERA: DIAPRIIDAE). Claudivânia Miranda de Oliveira, Karina Mancini, José Lino Neto, Biologia Geral e Biologia Celular, UFV e Unicamp, MG e SP, Brasil,

Objectives The present study describes the ultrastructure of the spermatozoa of Trichopria sp. with emphasis on mitochondrial derivative

Methods Seminal vesicles contend spermatozoa of Trichopria sp. were prepared for conventional methods for analysis with the transmission electron microscopy.

Results The spermatozoa of this species are spiral and present a region of head, that count the nucleus, and a region of flagellum, where axonema is found. It presents a single mitochondrial derivative, which projects to the front of the nucleus and extends through almost all the flagellum. The anterior region of the head of the spermatozoa possesss a thick extracellular sheath that coats the anterior extremities of nucleus of the mitochondrial derivative.

Conclusions The spiralling of the spermatozoa of Trichopria sp. is a characteristic shared with Scelionidae (Platygastroidea) and Chalcidodea. The presence of a single mitochondrial derivative and the overlapping of this with the nucleus are shared only with Scelionidae, in the same way that the presence of the extracellular sheath is shared only with Chalcidoidea. Therefore, these data suggest that the Diapriidae are phylogenetically close to the Platygastroidea and Chalcidoidea, as already proposed in studies using conventional morphological data as well as molecular analysis.

A66

Histopathologic lesions in the ventral prostate microenvironment of old gerbil (Meriones unguiculatus). Silvana Gisele Pegorin de Campos, Cristiani Zanetoni, Sebastião Roberto Taboga, Biologia Celular, UNICAMP/UNESP, São Paulo, Brasil, CNPq, FAPESP

Objectives The present study was realized to characterize and classify the spontaneous ventral prostatic lesions in old gerbils to assess the viability of using this model in prostate cancer study.

Methods Thirty old gerbils with medium age of 18 + 5.42 months were divided in no affected (controls) and prostatic lesion bearers. For light microscopy, some prostatic fragments were fixed for 24h in 10% neutral buffered formalin and Histosec embedded (for immunohistochemical analysis) and others in modified Karnovisky solution and embbeded in Leica glycol methacriylate resin (for quantitative analysis). For transmission electron microscopy analysis was employed the fixation in 3% glutaraldehyde in Millonig's buffer, and after, the post-fixation with 1% osmium tetroxide, the fragments were dehydrated in graded acetone series and embedded in Araldite resin.

Results The most frequent alterations were from epithelial origin, such as the prostatic intraepithelial neoplasias, microinvasive carcinomas and adenocarcinomas. The invasive potential of anomalous cells could be proven by the basement membrane rupture. In the stromal compartment, cellular hyperplasia, when verified, was always associated to sites of anomalous epithelium. Additionally, larger deposition of collagen fibrils, generating stromal fibrosis, was found in all old gerbils analyzed. The quantitative analysis showed that prostatic tissue proportions differed in altered areas, being private for each lesion type. Isolated nuclear and nucleolar parameters were not effective to diagnose the malign potential of lesions. However, the cellular proliferation and death indexes indicated larger cellular turnover in invasive lesions such as carcinomas.

Conclusions Concluding, with these analyses it could be verified that old gerbil presents high propensity in developing prostate spontaneous alterations and this can aid in a best understanding of the biological behavior of human prostate cancer.

A67

Effect of the "funcho" (Foeniculum vulgare Mill.) seed infusion and leaf extract on gestation. Sofia Louise Santin Barilli, Mery Stéfani Leivas Pereira, Tatiana Montanari, Departamento de Ciências Morfológicas, UFRGS, Rio Grande do Sul, Brasil, Pró-Reitoria de Pesquisa/UFRGS

Objectives Foeniculum vulgare Mill. (Apiaceae), fennel or "funcho", has been used as an estrogenic agent for millenia. It has been reputed to increased milk secretion, promote menstruation, facilitate birth and increase libido. Seed and leaf infusions are also taken for their antispasmodic and carminative effects, and the seeds or their essential oils are used as flavoring agents in food. Because of the presence of estrogenic substances and its common use in herbal medicine, the seed infusion and lyophilized hydroalcoholic leaf extract were administered to CF1 mice to study its effect on the gestation.

Methods Females received orally 4 ml/kg/day of the seed infusion or 1000 mg/kg/day of the leaf extract suspended in distilled water (or 4ml/kg/day of distilled water) from the first to the third gestation day (gd) – preimplantation period, from the fourth to the sixth gd – implantation period, and from the seventh to the ninth gd – postimplantation period, when organogenesis and placentation start. The females were killed on 18 gd. The number of corpora lutea, implantation sites, reabsorptions and fetuses were recorded. The ovaries, placenta and fetuses were weighed.

Results Seed infusion did not cause neither preimplantation embryonic loss, nor reabsorptions or fetal death. Otherwise, the hydroalcoholic leaf extract, administered from the fourth to the sixth gd, decreased the implantation rate and caused a significant reduction on the birth rate.

Conclusions Therefore, while the seed infusion did not impair the reproductive parameters, the hydroalcoholic leaf extract might be abortive by inhibition of the implantation.

A68

Effect of "buchinha-do-norte" (Luffa operculata Cogn.) fruit decoct on female reproduction and on embryofetal development. Sofia Louise Santin Barilli, Silvia Tonial dos Santos, Tatiana Montanari, Departamento de Ciências Morfológicas, UFRGS, Rio Grande do Sul, Brasil, Pró-Reitoria de Pesquisa/UFRGS

Objectives Luffa operculata (Cucurbitaceae) is used for sinusitis, but it might cause nausea, vomiting and hemorrhage. Currently the concentrated decoct is taken as an abortifacient. This study intends to verify its action on gestation and to identificate an estrogenic activity.

Methods The fruit decoct was administered orally to pregnant mice at a dose of 4 ml/kg per day (0.755mg of dry matter/ml), from the first to the third gestation day (gd) – preimplantation period, from the fourth to the sixth gd – implantation period, and from the seventh to the ninth gd – postimplantation period, when organogenesis and placentation start. The females were killed on 18 gd. The number of corpora lutea, implantation sites, reabsorptions and fetuses were recorded. The ovaries, placenta and fetuses were weighed. The fetuses were examined for malformations and skeletal anomalies. Sexually immature females received the decoct for three days, and the uteri were collected and weighed to verify an estrogenic activity by L. operculata.

Results The decoct administration from the fourth to the sixth gd caused a significant reduction on the body weight and on the birth rate. In this same group, many fetuses presented a retarded bone development. One fetus with facial anomaly and exophthalmia was found in the group that received the decoct from the seventh to the ninth gd. From the administration to imature females, the decoct was not uterotrophic.

Conclusions Luffa operculata might be abortive by an antiimplantation effect, which is not induced by an estrogenic activity. Furthermore, it might delay the fetal growth. A possible teratogenic action also cannot be despised.

A69

Effect of hydroalcoholic root extract of Pfaffia glomerata (Spreng.) Pedersen on the reproduction and embryofetal development, Sofia Louise Santin Barilli, Tatiana Montanari, Departamento de Ciências Morfológicas, UFRGS, Rio Grande do Sul, Brasil, Pró-Reitoria de Pesquisa/UFRGS

Objectives Pffafia glomerata (Amaranthaceae), popularly "Brazilian ginseng", is commonly used for the same therapeutic indications as "ginseng" (Panax spp., Araliaceae): as a sexual stimulant, against the stress, and to improve the resistance to infections. The aims of this study were to investigate its action on gestation and to verify if it has an estrogenic activity.

Methods The lyophilized hydroalcoholic extract was administered orally to pregnant mice at a dose of 1000 mg/kg/day, from the first to the third gestation day (gd) – preimplantation period, from the fourth to the sixth gd – implantation period, and from the seventh to the ninth gd – postimplantation period, when organogenesis and placentation start. The females were killed on 18 gd. The number of corpora lutea, implantation sites, reabsorptions and fetuses were recorded. The ovaries, placenta and fetuses were weighed. The fetuses were examined for malformations and skeletal anomalies.

Results The extract promoted neither embryonic loss before implantation, nor inhibited the implantation. Females treated from the first to the third gd did not gain weight during the administration, and it had a greater quantity of degenerated embryos and dead fetuses, but the death rate was not significantly different than control. In this group, more fetuses exhibited skeletal abnormalities, as 14th rib, desaligned sternebrae and ilium and also a case of prognathism.

Conclusions The extract did not have an estrogenic activity by bioassay employing the immature mouse uterus. In spite of the extract having not promoted embryonic loss before implantation, skeletal anomalies were found in fetuses whose mothers were treated in this period.