

The thin sections were studied with LEO 906 TEM.

Results: Observations electron microscopy in the control group showed that euchromatin nucleus of spermatogonia cells in the form of round and oval which are arranged on basement membrane, Myoid cells are being drawn, Sertoli cells have clear and dense euchromatin nucleus and the shape of a triangle or oval that was the cytoplasm of the basement membrane, Leydig cells were the most important cells in the interstitial tissue that were in a group or individual and had a large nuclear and cytoplasmic euchromatin and multiple Granola with short microvilli, but in the group receiving vincristine that Spermatogenic cells containing organelles are degraded such as Vacuolated of mitochondria and a large number of apoptotic cells with condensed chromatin crescent-shaped and Multi-vesicular bodies (Mb) . Leydig cells were containing more granular than the control group. But In the group receiving GnRH antagonist, Spermatogonia cells similar to control and contain euchromatin nucleus of round and oval, small mitochondria, Endoplasmic reticulum, Golgi and the number of apoptotic cells was reduced. Leydig cells were similar to the control group, but contain numerous granules.

Conclusion: This study showed that the use of GnRH antagonist before and after treatment with vincristine has an inhibitory effect on the Hypothalamic-Hypophysis axis and by reducing in hormones (FSH) and (LH) reduces intracellular organelles damage and apoptosis.

Keywords: GnRH Antagonist, Anticancer Drug, Intracellular Organelles, Apoptosis, Electron Microscopy

P-4: Melatonin Improves Sperm Parameters Along with Serum Levels of Malondialdehyde and Total Antioxidant Capacity in Mice following Treatment with Dexamethasone

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Background: Melatonin as a strong antioxidant hormone which is produced by the pineal gland and has high potential for neutralizing the Pharmaceutical toxins. The aim of this study was to investigate the effect of melatonin on sperm parameters and serum levels of malondialdehyde (MDA) as well as total antioxidant capacity (TAC) in adult mice following treatment with dexamethasone.

Materials and Methods: In this experimental study, male NMRI mice with an average weight of 39 g divided into four groups (n=6) including: control, Dexamethasone (7 mg/kg b.w), Dexamethasone+ Melatonin (7 mg/kg+20 mg/kg) and Melatonin (20 mg/kg). Treatment was performed through intraperitoneally injection for 7days. At the end of treatment period, the blood serum was collected for measuring the level of MDA and total antioxidant potential using thiobarbituric acid method and ferric reducing ability of plasma (FRAP) assay respectively . Then the left caudal epididymis was cut to obtain sperms for evaluating sperm parameters. Data were Statistical analysis using one-way ANOVA and Tukey's test, and the means difference was considered significantly different at P<0.05.

Results: A significant reduction in the mean number of sperm was found in the dexamethasone group when compared to the control group (P<0.001), this parameter was significantly increased in the dexamethasone+ melatonin group to the control level (P<0.01). The mean sperm motility and viability were significantly reduced in the dexamethasone group compared to

the control ones (P<0.001), while they were increased in the dexamethasone+ melatonin group compared to dexamethasone group (P<0.001). A significant increase in the level of serum MDA was seen in the dexamethasone group (P<0.001) when compared to the control group, while it was reduced to the control level in the dexamethasone+ melatonin group (P<0.05). The mean total of TAC was significantly reduced in the dexamethasone group (P<0.001) in comparing with control group, but it was compensated to the control level in the dexamethasone+ melatonin group (P<0.05).

Conclusion: Our data showed that the administration of melatonin for 7 days improved motility, count and viability of sperms along with reducing and increasing the serum level of MDA and TAC respectively through reducing oxidative stress in mice treated with dexamethasone.

Keywords: Melatonin, Parameters, Malondialdehyde, Total Antioxidant Capacity, Dexamethasone

P-5: The Protective Effect of Quercetin Against Silver Nanoparticles-induced Testicular Toxicity in NMRI Mice

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Background: Due to the use of silver nanoparticles in life and production of free radicals and oxidative stress, these particles affect the reproductive system, so the aim of this study was to investigate the effects of quercetin as effective antioxidant on the testes of mice treated with silver nanoparticles.

Materials and Methods: Twenty-four adult male mice(NMRI), were divided into 4 equal groups(n=6) such as : control, silver nanoparticles(500 mg/kg/day), quercetin(50 mg/kg/day) and silver nanoparticles+quercetin.the mouse were treated orally with silver nanoparticles for 35 days and were treated by intraperitoneal injection with quercetin for 42 days. Finally, the rats were weighted and right testis was removed, fixed, sectioned and stained according to Heiden Hain Azan method. Subsequently the testicular tissue different parameters were studied using stereological methods. Serum testosterone levels were also determined . Data were analyzed by one-way Anova and means difference was considered significant when P<0.05.

Results: The total volume of testis, diameter and height of the germinal epithelium, total number spermatids, spermatocytes, sertoli cells significantly decreased in silver nanoparticles group compared to the control group (P<0.001). A significant decrease in the serum testosterone levels was found in silver nanoparticles group compared with control group (P<0.001). mentioned parameters were largely compensated in silver nanoparticles+quercetin group compared with silver nanoparticles group.

Conclusion: Quercetin seems to could have a protective effect on reproductive system.

Keywords: Silver Nanoparticles, Quercetin, Stereological Methods, Sertoli Cell, Male Mice

P-6: Comparison of The Efficacy of Varicocelelectomy in Nonobstructive Azoospermic Men with and without Varicocele

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Background: To evaluate the outcome of microsurgical varicocelectomy in nonobstructive azoospermic (NOA) men with clinical varicocele in five years in royan institute.

Materials and Methods: A retrospective review of patients treated for NOA and varicocele from march 2011 to march 2016 was performed. Also we have compared MDTESE results of our 57 patients with NOA and clinical varicocele with 537 NOA patients without varicocele in royan institute.

Results: Of 57 patients who underwent varicocelectomy, eight patients (14%) had sperm on sperm analysis postoperatively. One of the patients was single, and one of them had spontaneous pregnancy (1/7)14%, and one had child with microinjection (1/7)14%. Of these 8 patients, 6 had hypospermatogenesis pathology. Of 38 patients who underwent MDTESE, 14 patients (36%) had sperm on testis tissue that one of them had no egg fertilization and so the fertilization rate was (92%). Of these 13 patients, 3 had live child birth (3/13) 23%. Sperm retrieval rate (SRR) in NOA men without clinical varicocele was lower from those who had varicocele and NOA (22 vs. 36%). Also live birth rate in NOA men with varicocelectomy was higher than NOA men without varicocele (23 vs. 11%).

Conclusion: Microsurgical varicocelectomy in NOA men may positive effect on postoperative sperm in ejaculate and spontaneous or assisted pregnancy, but it seems that this effect is more significant on MDTESE results and following successful microinjection. Meanwhile SRR and live birth rate was higher in our patients compare to NOA men without clinical varicocele.

Keywords: Nonobstructive Azoospermia, Varicocele, Sperm Retrieval Rate, MDTESE

P-7: The Influence of Permanent Magnetic Field on Sperm Kinematic Parameters

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Background: Effect of static magnetic field (SMF) on biological

system has been a topic of considerable interest for many years. There is advantage of using permanent magnets for therapeutic applications. Infertility problem is still considered one of the most serious problem of affected couple. This problem exists in all communities one third of infertility endured by couple is due to male factors and among these factor, motility of sperm that one of important parameters in fertility. The objective of this research is to investigate the effects of permanent magnetic field on human spermatozoa motility.

Materials and Methods: After initial examination semen sample were collected from normospermic men (n=30), and were allowed to liquefy for 15-30 min. Each sample was divided into two subsamples that were exposed ("treated") or not ("control") during, 1-5 h to a uniform static magnetic field at the center of permanent magnetic. During the experiments, a small part of the treated and the control samples was taken away and observed every 60, 180, 300 min from beginning of the treatment. The content of sperm motility was determined by CASA (computer assisted sperm analysis). The assessed motility parameters consisted of: the total motility, (such as (1) the progressive motility; (2) the straight-line velocity (VSL; the straight-line distance from the beginning to the end of a spermatozoa track divided by the elapsed time) given in mm/s and (3) the average path velocity (VAP) given in mm/s. Data analysis was performed using SPSS (version 16) and paired t test. The P value<0.05 is considered significant.

Results: Sperm motility was significantly increased under the influence of static magnetic field while the motility percentage of sham group decreased the motility. The sperm kinematic parameters (VSL, VCL, VAP) were observed increase in the group that was exposed to 1 mt static magnetic field after 1hr exposed.

Conclusion: The static magnetic field could influenced the human sperm motility. The result of this experiment showed the MF at (1mt) after 1hr increased sperm motility. However, sperm velocity was significantly affected by exposure of sperm to MF. The static magnetic field can affect the human sperm motility by increasing the percentage of motile spermatozoa and the correlated kinematic parameters, but these effects depend on both intensity and time of the applied magnetic field.

Keywords: Permanent Magnetic Field, Sperm, Motility

P-8: Mouse Maternal Omega-3 Dietary Fatty Acid with or without Vitamin E Effects on The Offspring's Sperm Kinematic Characteristics

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Background: Vitamin E protects polyunsaturated fatty acid (PUFA) in phospholipids of membrane against peroxidation. We investigated the influence of maternal dietary fish oil (omega-3 source) with and without vitamin E on offspring' sperm parameters.

Materials and Methods: Thirty-six female mice in 6 groups fed different diets adlibitum during one week before mating to weaning day. The dietary groups were standard diet (control;C, 50IU vit.E/kg diet), CLF and CHF groups which consumed 15