

R1 R2 R3 PG0 PG1 Estagiário Tecnólogo
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Service (sector) CataractNº CEP

Effect of electroacupuncture on selenite-induced cataract in Wistar rats.

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Purpose: To investigate whether electroacupuncture can prevent sodium-selenite-induced cataract in an experimental model. **Design:** Prospective, masked and controlled experimental study. **Methods:** Fifty Wistar rat litters were randomized into 5 groups: Group 1 (control - n =10) no procedure was performed. Group 2 (selenite - n =10), sodium selenite (30 nmol/g body weight) was injected subcutaneously between postpartum days 10 to 12. Group 3 (anesthesia - n=10) received same dose of selenite and underwent inhalation ether anesthesia during 20 minutes daily per one week. Group 4 (electroacupuncture - n=10) underwent the same procedure of group 3, receiving electroacupuncture (2 Hz, ~ 2 V) applied to the Neiguan (PC 6) and Guangming (GB37) acupuncture points during anesthesia period. Group 5 (sham - n=10) underwent the same procedures the group 4, but needles was applied to the false acupuncture points. The development of cataract was assessed one week later, and its density was graded by slitlamp biomicroscopy. **Results:** All control rats lenses (Group 1) were clear. Groups 2, 3 and 5 rats developed more severe cataract or complete opacification. In the Group 4 (electroacupuncture), forty per cent of rats did not developed cataract and thirty per cent developed less severe cataract than Groups 2, 3 and 5. The between-group difference was statistically significant ($P < .05$). There was no statistical difference between Groups 1 and 4 (control and electroacupuncture – $P < .001$). The lenses opacification grade in the groups 1 and 4 was lower than in the group 2, 3 and 5 ($P < .001$). **Conclusion:** Electroacupuncture effectively decreased selenite-induced cataract formation rate in pub rats.