



Correction

Correction: Taha et al. Activation of SIRT-1 Pathway by Nanoceria Sheds Light on Its Ameliorative Effect on Doxorubicin-Induced Cognitive Impairment (Chemobrain): Restraining Its Neuroinflammation, Synaptic Dysplasticity and Apoptosis. *Pharmaceuticals* 2022, 15, 918

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In the original publication [1], there were mistakes in Figures 4 and 9 as published. In the legend for Figures 4 and 9, we corrected the legend for the “control group” in Figure 4A, and the “treated group DOX + CeNPs” in Figure 9D,I. We used the wrong image for the “control group” in Figure 4A, and for the “treated group DOX + CeNPs” in Figure 9D. The corrected Figures 4 and 9 appear below. The authors state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

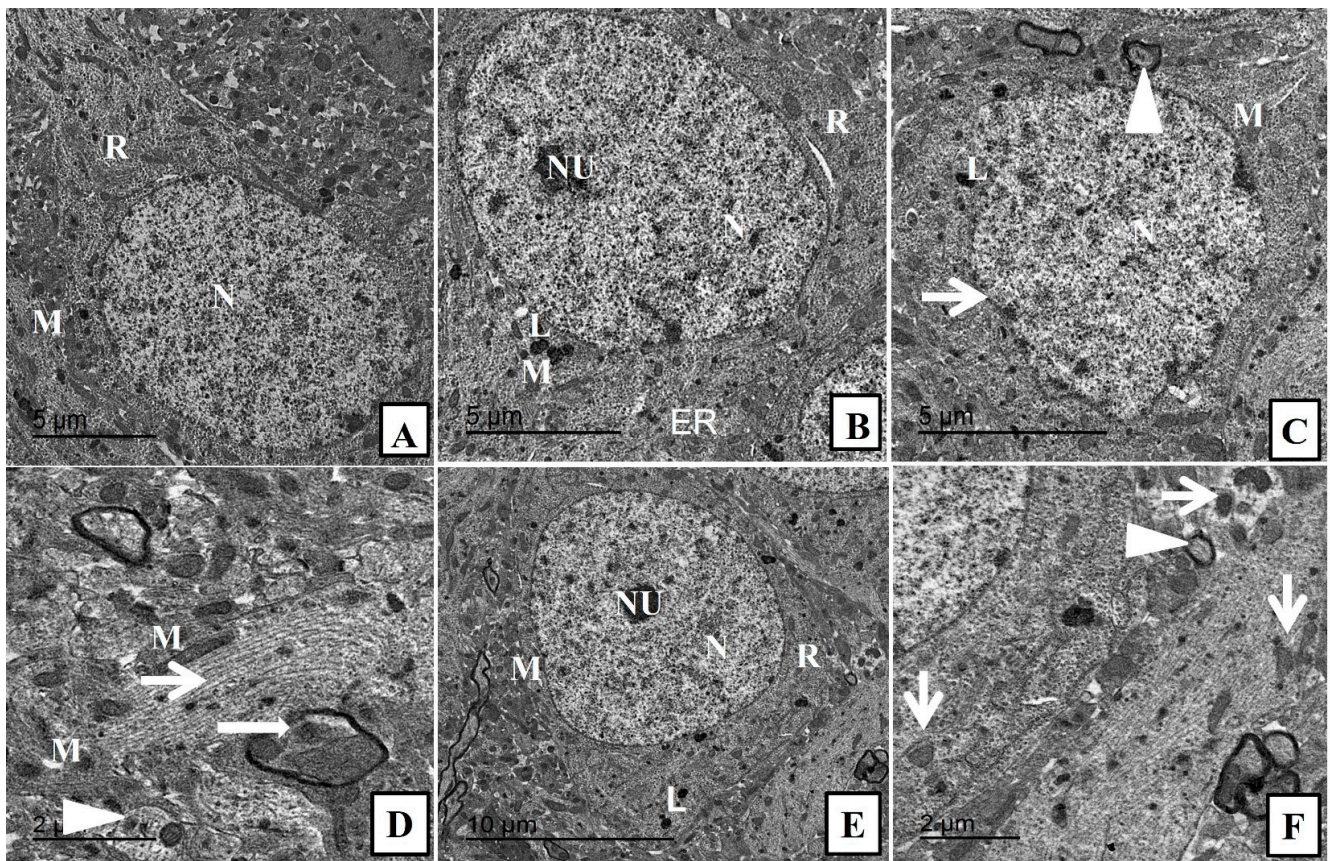


Figure 4. Transmission electron micrographs of hippocampus from different groups. (A) control group showing the normal structure of the neuron with normal nucleus (N), and cytoplasm containing mitochondria (M), and ribosome (R). (B) CeNPs group showing the normal structure of the neuronal cells with intact nuclear envelope, distinct nucleoli (NU), normal cytoplasmic organelles (mitochondria (M), ribosomes (R), lysosomes (L), and endoplasmic reticulum (ER)). (C) DOX group showing enlarged nucleus with blebs of nuclear envelope (thin arrow), loss of nucleolus, few irregular shaped mitochondria (M) with minimal degenerating sheaths surrounding a degenerated axon (arrowhead). (D) DOX group showing completely loss of myelin sheath (arrowhead), other area showing intact axon with gradual loss of myelin (thick arrow) beside dilated microtubules (thin arrow) intercalated with few irregular shaped mitochondria (M). (E,F) Treated group Dox + CeNPs showing the normal architecture of nucleus (N) with prominent nucleoli (NU) and most cytoplasmic organelles (mitochondria (M), lysosome (L), ribosome (R) within the neurological cell. (F) Higher power showing with minimal mitochondrial membrane losses (thin arrows) either inside and around the neuronal cell with minimally affected sheath (arrowhead). Scale bar = 5 μm (A–C), 2 μm (D,F), 10 μm (E).

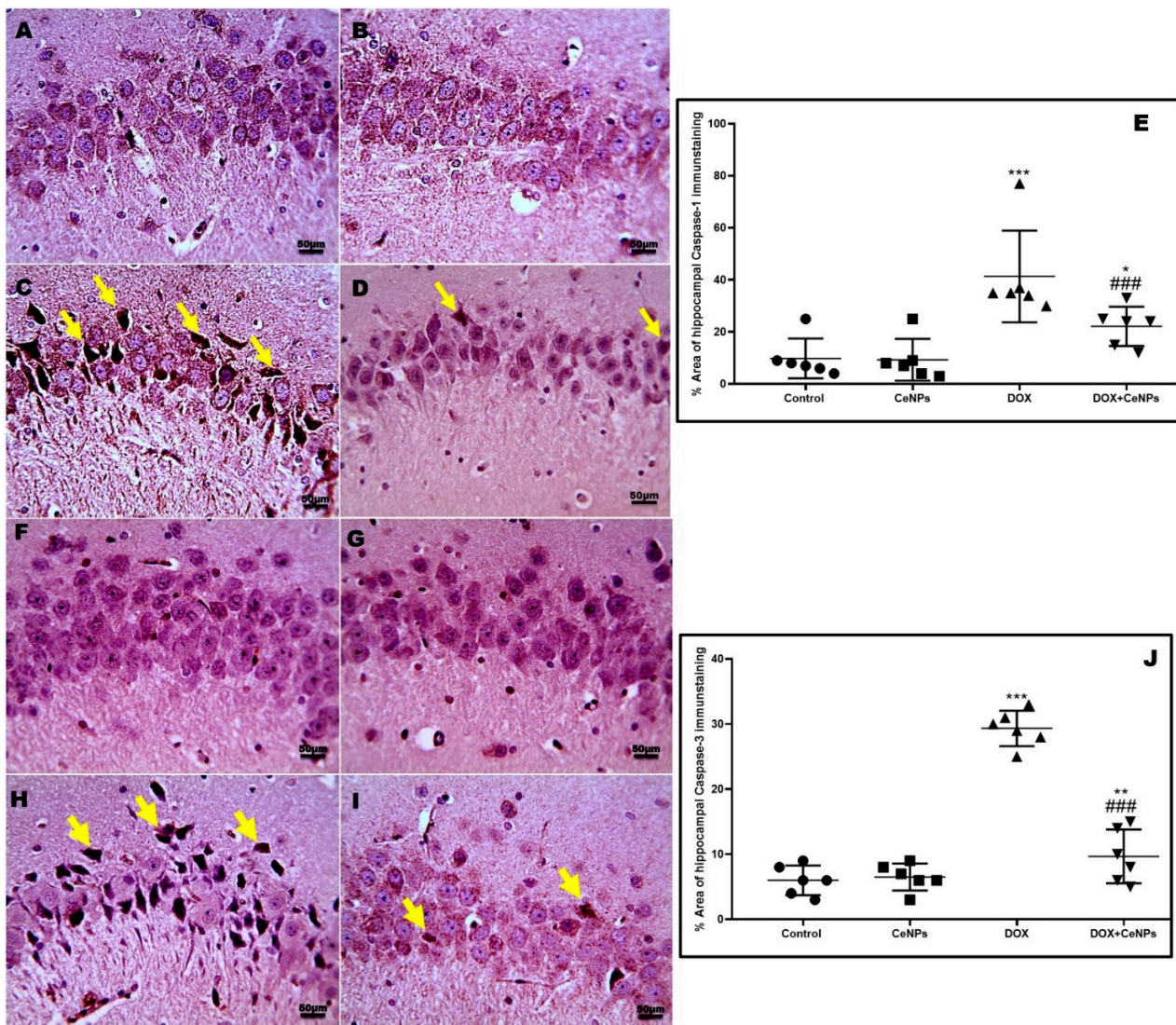


Figure 9. Effect of nanoceria on the hippocampal expression of caspase 1 and caspase 3 enzymes. (A,B,F,G) Hippocampal sections of control group and group which received CeNPs showing few numbers of positively brown stained neurons in pyramidal layer in CA3 region. (C,H) Hippocampal sections from DOX group showed markedly increased numbers of positively brown stained neurons (yellow arrows). (D,I) Hippocampal sections from treated group DOX + CeNPs showed decreased numbers of positively brown stained neurons (yellow arrows). (E,J). Histogram of % area of immunostaining hippocampal caspase 1 and caspase 3, respectively. Values are expressed as mean \pm SD. The statistical investigation was carried out utilizing one-way ANOVA with Tukey's post hoc analysis. *** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$ significant vs. control group ### $p < 0.001$ significant vs. DOX group. Magnification $\times 400$. Scale bar = 50 μ m.

Reference

1. Taha, M.; Elazab, S.T.; Badawy, A.M.; Saati, A.A.; Qusty, N.F.; Al-Kushi, A.G.; Sarhan, A.; Osman, A.; Farage, A.E. Activation of SIRT-1 Pathway by Nanoceria Sheds Light on Its Ameliorative Effect on Doxorubicin-Induced Cognitive Impairment (Chemo-brain): Restraining Its Neuroinflammation, Synaptic Dysplasticity and Apoptosis. *Pharmaceuticals* **2022**, *15*, 918. [[CrossRef](#)] [[PubMed](#)]

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