

Table 1) Comparison of the mean of the morphological parameters of the restored nerves end of week 12 after surgery
(number in each group = 10 head

Sham Group	Methylprednisolone 1	Methylprednisolone 30	Scaffold Binding with Drug Solvent
The Number of Fibers			
7915.25±57.76	3767.00±137.78#	4255.37±61.67*	3409.37±131.78#
Diameter of Fibers (micrometer)			
11.17±0.19	7.10±0.11#	8.51±0.11#	6.36±0.15#
Axon Diameter (Micrometer)			
6.43±0.18	4.15±0.07#	4.27±0.06#	4.06±0.10#
Thickness of myelin Sheath (Micrometer)			
2.36±0.13	1.47±0.06#	2.08±0.04#	1.15±0.07#

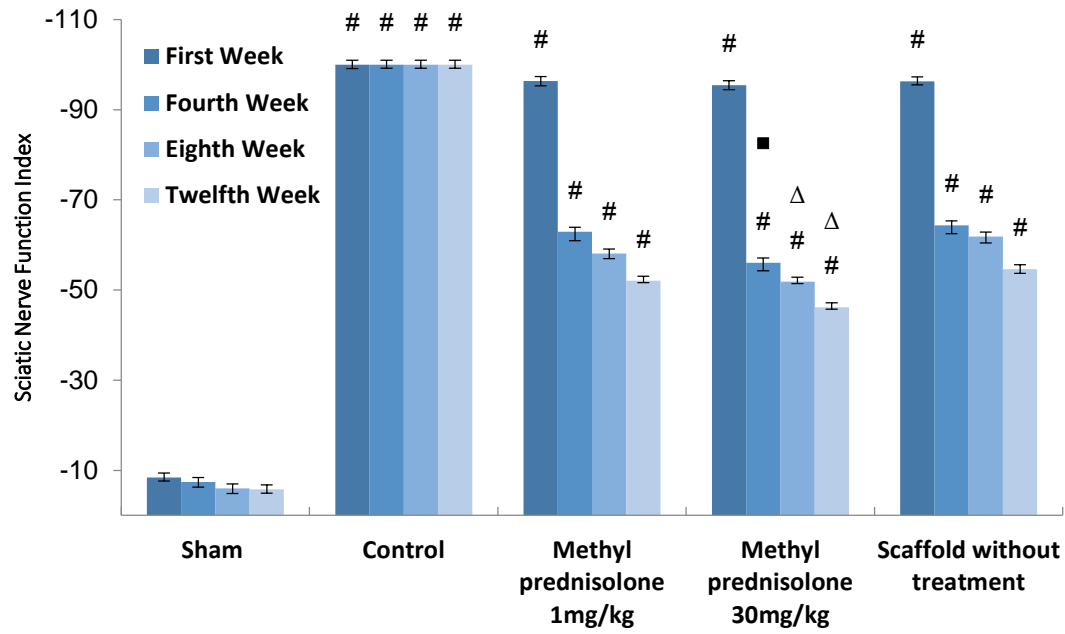


Figure 1) Functional index of sciatic nerve in different weeks in each group ($p < 0.05^*$ and $\# p < 0.0001$ in comparison with the sham group; $p < 0.05^*$ and $\Delta p < 0.0001$ in comparison with methylprednisolone doses with each other)

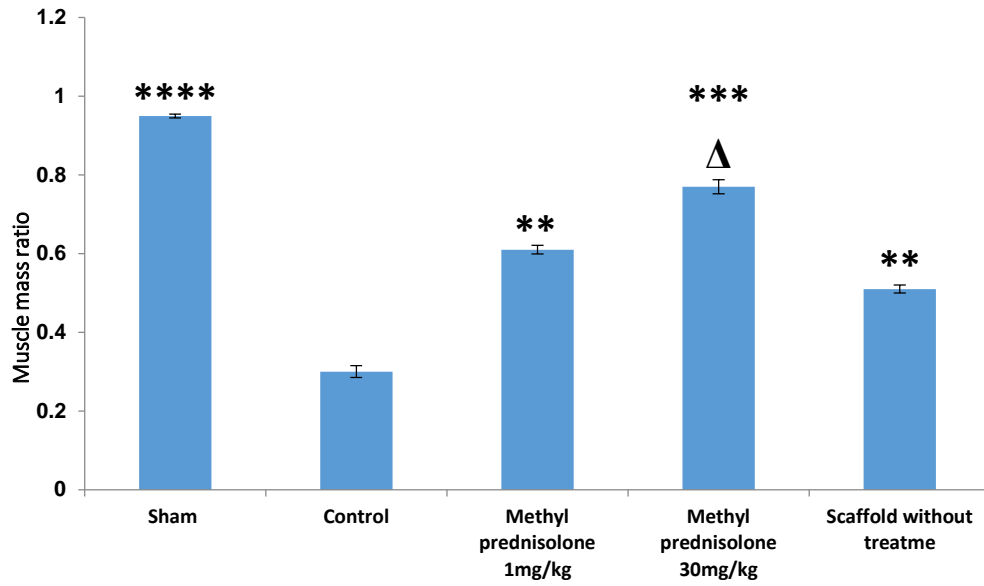


Figure 2) The ratio of gastrocnemius muscle mass between the surgical foot and the healthy foot at the 12th week after the surgery ($p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$ and $p < 0.0001^{****}$ and $\Delta p < 0.0001$ in comparison of different doses of methylprednisolone with each other)

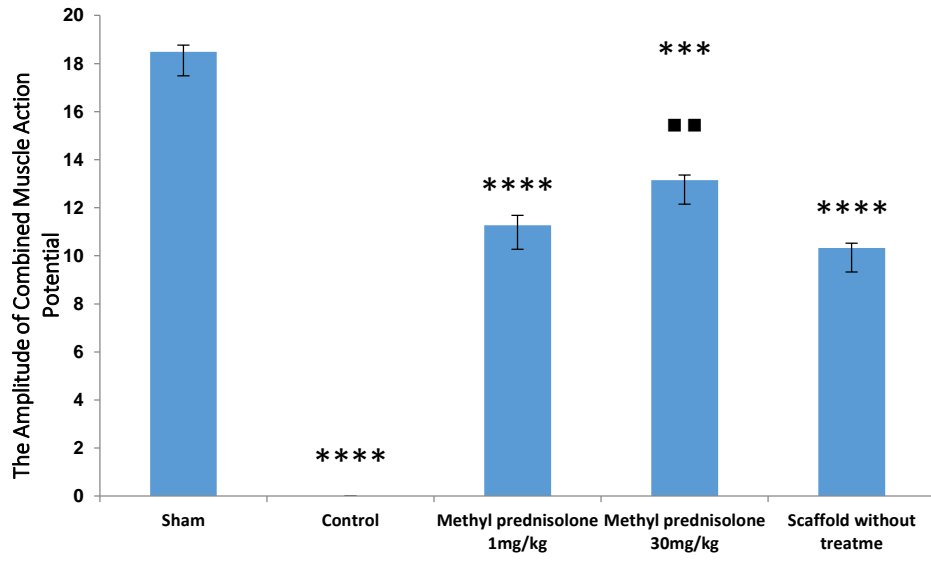


Figure 3) The amplitude of the compound activity potential recorded from different groups in the 12th week after surgery ($p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$ and $p < 0.0001^{****}$ compared to the sham group; $\blacksquare p < 0.05$, $\blacksquare p < 0.01$ and $\Delta p < 0.0001$ in comparison with different doses of methylprednisolone with each other

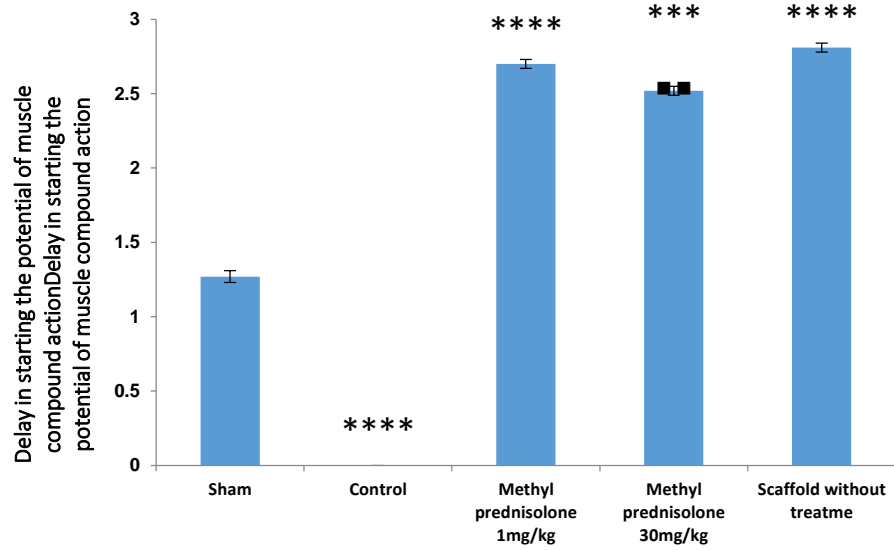
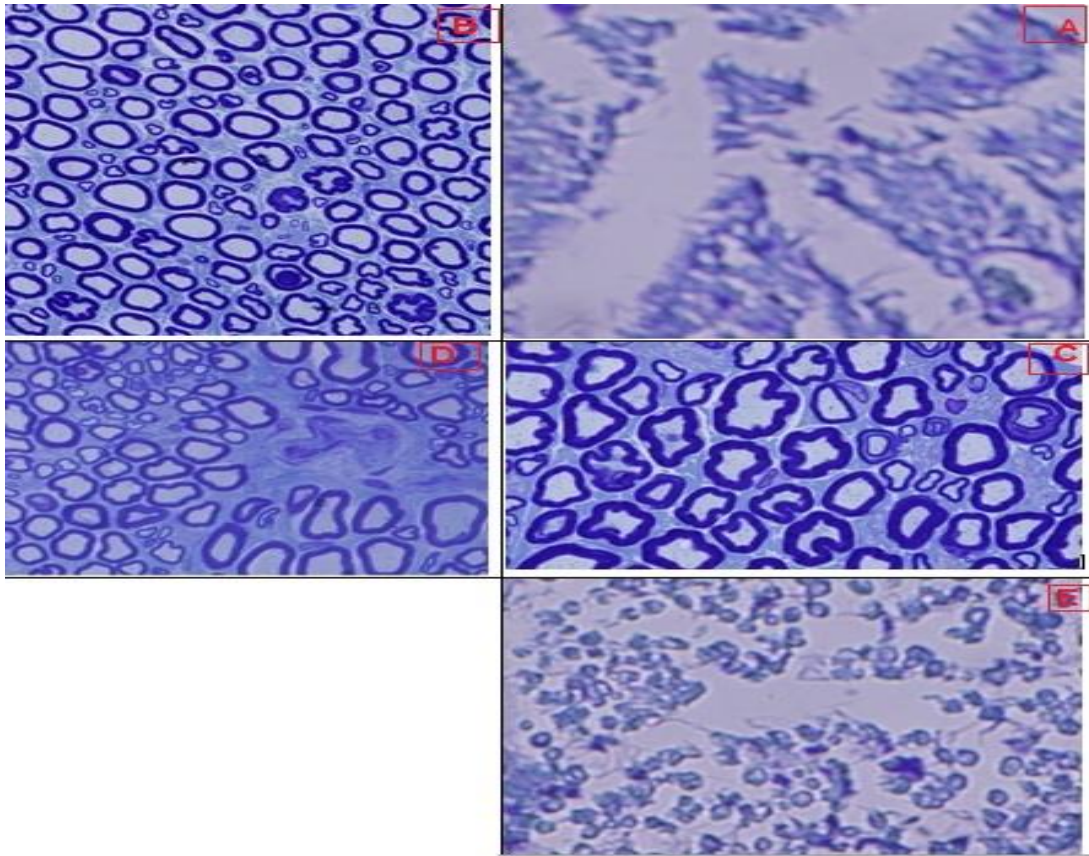


Figure 4) The starting delay of the combined drug potency of the different groups in the 12th week after surgery ($p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$ and $p < 0.0001^{****}$ compared to the sham group; $\blacksquare p < 0.05$, $\blacksquare\blacksquare p < 0.01$ and $\Delta p < 0.0001$ in comparison with different doses of methylprednisolone with each other)



Picture 1) Transverse mid-section of sciatic nerve stained with toluidine benzoin in different groups, negative control group (A), Sham group (B), experimental group of methylprednisolone at a dose of 30 mg/kg (C), experimental group of methylprednisolone at a dose of 1 mg/kg (D), The experimental group of scaffolds together with the solvent (E)