

Biostatistics Review Certificate

Statistical analysis

Conceived and designed the meta-analysis: ZX Wang JX Cao. Performed the experiments: ZX Wang JX Cao. Analyzed the data: JX Cao LH Wu J Y L K.

The analysis was carried out by comparison of the stem cell intervention arms with the respective control arms and also the comparison before and after the stem cell therapy. Treatment effects were reflected by CRP, D-dimer, IL-6 and OS. The data of these endpoints in each arm were extracted from each trial and combined using a method by Mantel and Haenszel (Review Manager Version 5.0, Nordic Cochran Centre, Copenhagen), which have been reported in our previous work. To evaluate whether the results of the studies were homogeneous, we used Cochran's Q test. It is a chi-squares test with df equal to the number of studies minus one, and tests the null hypothesis that the difference between the study estimates of mean difference (MD) or odds ratios (OR) is due to chance. We also calculated the quantity I^2 that describes the percentage of variation across studies that is due to heterogeneity rather than chance. The MD was calculated with a fixed-effect model when no statistically significant heterogeneity existed ($I^2 < 50\%$); otherwise, a random-effect model was employed and OR was calculated ($I^2 > 50\%$). P-values at < 0.05 were considered to be statistically significant. All reported P-values resulted from two-sided version tests of the respective tests, as described in our previous works.