Supplementary Materials



Supplementary Figure 1. The overall survival rate between the metformin and non-metformin groups by pooling the data from the 8 studies. A: Meta analysis of 1-year results (lacking of the studies by Kang and Chan). B: Meta analysis of 3-year results (Chan’s study including both surgical group (Chan-1) and non-surgical group (Chan-2)). C: Meta analysis of 5-year results (lacking of the studies by Jang, Gardini and Chung).



Supplementary Figure 2. The overall survival and progression-free survival rate between the metformin and non-metformin groups in non-curative treatment group. A: Meta analysis of 1-year results of overall survival rate. B: Meta analysis of 3-year results of overall survival rate. C: Meta analysis of 1-year results of progression-free survival rate.



Supplementary Figure 3. The publication bias assessment of the 3yr OS rate of curative treatment.