Reviewer's report

Title: Influence of laparoscopic-assisted gastrectomy and open gastrectomy on serum interleukin-6 levels in patients with gastric cancer among Asian populations

Version: 3 Date: 15 January 2015

Reviewer: Makoto Meguro

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The paper is a meta-analysis with 54 studies selected by PubMed, EBSCO, Ovid, Wiley, Web of Science, WANFANG and VIP databases. Authors indicate “compared with OG, LAG reduces the expression of IL-6 effectively and further inhibits inflammatory reaction for GC patients among Asian population”.

Although this study was well documented, there are significantly critical and crucial problems as described below

> Meta-analysis should be performed by including Cochrane Library and EMBASE databases.

> IL-6 values, tumor progression status, lymph node dissection status, and reconstruction methods such as B-I or Roux-Y are not shown in Table 1. Therefore, there are not easy to understand these reports.

> In the results section (p8 the last paragraph), Figure 6C shows asymmetric shape, so there is existence of publication bias. Figure 6D shows symmetric shape, so there is no existence of publication bias. A contradiction exists in this results sention. And then, you should correspond to the existence of publication bias.

> Authors described “Subgroup analysis based on country showed that, in Chinese and Japanese GC patients, both 40 postoperative and postoperative increased serum IL-6 levels in LAG group were significantly lower than those in OG group (all P < 0.05); In Korean GC patients, postoperative and postoperative 42 increased serum IL-6 levels in LAG group and OG group had no obvious statistical differences (all 43 P > 0.05)”.

Ref. 33 (Jung IK et al. reported) is shown only each 10 patients. This is not universal in Korea’s GC operation. Therefore, this paper’s conclusion is overstatement, so it is needed larger sample-sizes as you pointed out in conclusion.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.