Dear Editor,

We read with great interest the recent publication by Deng et al. (1) published in the March 2018 issue of Journal of Thoracic Disease. The authors have performed a meta-analysis in order to examine the role of platelet to lymphocyte ratio (PLR) in the prognosis of esophageal cancer and also to evaluate the relationship with tumor pathological characteristics. Thirteen articles with 4,621 patients from 2013 to 2017 were included in the meta-analysis. The pooled hazard ratios revealed that a high PLR was associated with poor survival of esophageal cancer. This is a very interesting meta-analysis in our understanding regarding the establishment of an important biomarker with significant prognostic ability in patients with esophageal cancer. Nevertheless, before the results of this meta-analysis achieve wider uptake, a few points should be taken into consideration. It is well known that in a meta-analysis the interpretation of the results of included studies are analysed by advanced mathematical models in order to calculate a common pooled effect precisely. As a result, the conclusions of a meta-analysis are directly proportional with the quality of the included studies (2). The aforementioned meta-analysis included studies with different design, making the conclusions controversial.

To begin with, there is a significant heterogeneity in the studies that the authors decided to include in their meta-analysis. Mainly, regarding the treatment methods (surgery, chemotherapy or chemo-radiotherapy), definition of outcomes after treatment (complete response or partial remission), timing of intervention, neoadjuvant or plus adjuvant treatment, stage of disease and demographic differences. Moreover, we noticed significant heterogeneity regarding the analysis of the relationship between lymph node metastasis (yes vs. no) and PLR ($I^2=17.9$), the association between TNM stage (stage III/IV vs. I/II) and PLR ($I^2=29.6$), and the correlation between tumor length (>3 vs. 3 cm) and PLR ($I^2=12.3$). The above important heterogeneity reduces the statistical power due to the fact that the included studies have widely varying outcomes (3).

Furthermore, according to our recent search of the literature, we confronted with 7 additional studies which should have been included in this meta-analysis due to the fact that they meet the inclusion and exclusion criteria (4-10). Table 1 demonstrates the characteristics of the studies that Deng et al. (1) have not included in their meta-analysis. More specifically, the aforementioned studies include 1,830 patients, published from 2011 to 2016 and were retrospectively designed. Five studies were from China and two from the UK. The cut-off points for the PLR ranged from 103 to 300 while six studies included patients with esophageal squamous cell carcinoma (SCC) and four with adenocarcinoma (ADC).

We suggest that Deng et al. (1) should repeat their meta-analysis including the additional seven studies that we suggest in order to analyse a larger group with additional 1,830 patients. Last but not least, the results of this study could be significantly more reliable if Deng et al. (1) include additional data regarding the publication bias.
Table 1 Main characteristics of the additional studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Country</th>
<th>Age (mean or median)</th>
<th>No. (male/female)</th>
<th>Treatment</th>
<th>Histology</th>
<th>Intent</th>
<th>Stage</th>
<th>Cut-off value</th>
<th>HR</th>
<th>Study type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutta et al. (4)</td>
<td>2012</td>
<td>UK</td>
<td>75</td>
<td>112 (85/27)</td>
<td>S¹</td>
<td>SCC, ADC</td>
<td>Cur</td>
<td>I–IV</td>
<td>150,300</td>
<td>U</td>
<td>Uni/Re</td>
</tr>
<tr>
<td>Noble et al. (5)</td>
<td>2013</td>
<td>UK</td>
<td>67</td>
<td>246 (195/51)</td>
<td>S¹</td>
<td>SCC, ADC</td>
<td>Cur</td>
<td>I–IV</td>
<td>150</td>
<td>U</td>
<td>Uni/Re</td>
</tr>
<tr>
<td>Yuan et al. (6)</td>
<td>2014</td>
<td>China</td>
<td>63.1±9.7</td>
<td>327 (282/45)</td>
<td>S¹</td>
<td>ADC</td>
<td>Cur</td>
<td>I–IV</td>
<td>150,300</td>
<td>U</td>
<td>Uni/Re</td>
</tr>
<tr>
<td>Liu et al. (7)</td>
<td>2015</td>
<td>China</td>
<td>59.2±7.9</td>
<td>326 (283/43)</td>
<td>S</td>
<td>SCC</td>
<td>Cur</td>
<td>I–IV</td>
<td>166.5</td>
<td>U/M</td>
<td>Uni/Re</td>
</tr>
<tr>
<td>Chen et al. (8)</td>
<td>2016</td>
<td>China</td>
<td>59.1±7.9</td>
<td>323 (281/42)</td>
<td>S</td>
<td>SCC</td>
<td>Cur</td>
<td>I–III</td>
<td>150</td>
<td>U/M</td>
<td>Uni/Re</td>
</tr>
<tr>
<td>Wan et al. (9)</td>
<td>2016</td>
<td>China</td>
<td>63.0</td>
<td>179 (150/29)</td>
<td>CRT</td>
<td>SCC, ADC</td>
<td>Cur</td>
<td>I–III</td>
<td>180</td>
<td>U</td>
<td>Uni/Re</td>
</tr>
<tr>
<td>Xie et al. (10)</td>
<td>2016</td>
<td>China</td>
<td>58.1</td>
<td>317 (244/73)</td>
<td>S²</td>
<td>SCC</td>
<td>Cur</td>
<td>I–III</td>
<td>103</td>
<td>U/M</td>
<td>Uni/Re</td>
</tr>
</tbody>
</table>

S, surgery; S¹, surgery ± neo chemo-radiotherapy; CRT, chemo-radiotherapy; S², surgery ± adjuvant chemo-radiotherapy; SCC, squamous cell carcinoma; ADC, adenocarcinoma; Cur, curative intent; HR, hazard ratio; Uni, unicentric; Re, retrospective; U, univariate analysis; M, multivariate analysis.

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None.

Footnote
Conflicts of Interest: The authors have no conflicts of interest to declare.

References