

Peer Review File

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Reviewer A

Well written. Interesting that addition of CRP would help stratify these patients given the overall increased inflammation you would expect in these patients in general. Perhaps I missed this but does a higher CONUT score preclude surgical options? Make patients better candidates for alternative therapies?

Reply:

Based on the results of this study, we cannot conclude that patients with a high CONUT score should be excluded from surgical indications. However, it is advisable to carefully consider the indication for surgery and to consider alternative therapies such as radiation therapy.

The population was largely early stage. It would be of interest to see the association between CRP and CONUT and the C-CONUT predictive capabilities at later stages.

Reply:

In this study, approximately 10% of cases were stage III or higher, and due to the small number of cases it was not possible to examine the significance of the C-CONUT score; however, we would like to accumulate more cases and re-examine this in the future.

Reviewer B

This retrospective study aims to establish a more sensitive and powerful prognostic scoring system than the CONUT score for elderly lung cancer surgery patients. A total of 114 patients over 80 years were analyzed.

The authors added the CRP to the CONUT score and create a new predictive score, C-CONUT.

The findings indicate that the combined CRP and CONUT may serve as a novel marker for prognosis in elderly NSCLC patients.

However, in my opinion, the study has some major limitations:

1. It might be helpful to add a flowchart to aid in understanding how the patients were included and excluded from the analysis. I don't understand how, out of the 767 patients treated between 2012 and 2020, only 114 patients were included, all of whom were over 80 years old.

Reply:

Of the 767 cases, 155 (20.2%) were patients aged 80 years or older. There were 6 cases of non-curative resection, 2 cases of neoadjuvant chemotherapy, 5 cases of postoperative adjuvant therapy, and 28 cases with insufficient data on clinic-pathology or prognosis. There 41 cases were excluded from this study. A flowchart of patients

selection is presented in Figure.1. The Patient section of 2.Method was also revised.

2. In Table 1, the authors describe the CONUT and CRP scoring system. However, the six patterns of CRP were not explained regarding how they were categorized. I suggest adding in the methods section an explanation of how the CRP was categorized into these six patterns.

Reply:

Regarding CRP values, 6 patterns were set as cutoffs: 0.1, the 50th percentile; 0.3, the 75th percentile; 0.2, the midpoint between the two values; and 1.0, which is used in GPS. This explanation has been added to Patients (New combined C-reactive protein and CONUT score (C-CONUT score)) section.

3. The preoperative blood sampling time is not specified in the text, as a different sampling time is used for each patient; the authors could be describe a range within which they decided to consider the blood sampling.

Reply:

Blood sampling was performed at different times for each patient, ranging from 1 to 10 days before operation. This explanation has been added to Patients (Data collection and follow-up) section.

4. The major limits of this study were the small sample and the limited analysis only to elderly patients. These biases impacting the generalizability and reliability of the findings.

Reply:

As you pointed out, the sample size is small, and this is also noted in the limitations. The results of this study were derived because they were limited to elderly people, and further study is required to determine whether they can be applied to non-elderly people under the age of 80.

Additional specific comments:

In the “Prognostic potential of the CONUT score and other clinicopathological variables” section, The authors write that “CONUT score ($p=0.0001$) were identified as significant determinants of OS in the univariate analysis.”. I think that it was the C-CONUT score.

Reply:

I had revised CONUT score to C-CONUT score.

Finally, we suggest to add the number of patients at risk to the Kaplan-Meier curves (Figure 3).

Reply:

I had added the patients at risk in Figure.3