Dear Editor:

I wish to re-submit our observational study, titled "Community-acquired pneumonia complicated by rhabdomyolysis: A clinical analysis of 11 cases." The manuscript ID is _49503

We thank you and the reviewers for your thoughtful suggestions and insights. The manuscript has benefited from these insightful suggestions. I look forward to working with you and the reviewers to move this manuscript closer to publication in the *World Journal of Clinical Cases*.

The manuscript has been rechecked and the necessary changes have been made in accordance with the reviewers' suggestions. The responses to all comments have been prepared and attached herewith.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,

Rui zheng

1) The authors stated "All patients were managed with hydration and alkalization" in the method section. However, the enrolled patients generally showed decreased serum K concentration in association with alkalosis (probably metabolic alkalosis?). Nevertheless, alkalization was introduced as one of the initial therapies. It is difficult for the readers to understand the reason why alkalization was needed as an early therapy.

Response:Thank you for your question. It is necessary to analyze the level of PaCO2 to distinguish the types of alkalosis in patients. We reviewed the level of PaCO2 in blood gas analysis, as shown in the table. Most patients have low

levels of PaCO2. Respiratory alkalosis is considered as a prominent manifestation. This is related to fever and hypoxia leading to faster breathing. After the diagnosis of RM, these patients are actively treated with alkalization. The treatment strictly follows the guidance of nephrologists. Renal failure occurs easily when the urine pH is less than 6. As long as the urine pH is kept at about 6.5, or even above 7.5, myoglobin can be filtered from the basement membrane. Therefore, for the perspective of RM treatment, early alkalization of urine can reduce the incidence of renal failure. However, CAP is the primary disease and RM is the secondary disease in this study. There are few systematic studies in the world. Nephrologists have not treated these patients differently. Without referring the PH level of blood gas analysis，it is suggested that urine should be alkalized as soon as possible to avoid deterioration of renal function.

| Case | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PH | 7.420 | 7.480 | 7.446 | 7.405 | 7.456 | 7.460 | 7.467 | 7.40 | 7.450 | 7.423 | 7.450 |
| $PaCO_2$ | 38 | 31 | 34.8 | 35.2 | 30.2 | 30.1 | 37.6 | 37 | 30 | 35.9 | 40 |
| $PaO_2$ | 83 | 69 | 86.7 | 84.2 | 57.5 | 51.9 | 62.5 | 87 | 68 | 64.6 | 76 |
| $HCO_3^-$ （AB） | 24.2 | 23.1 | 24.8 | 21.6 | 26.2 | 22.9 | 26.8 | 22.9 | 20.9 | 23.0 | 27.8 |

2) In relation to the matter as mentioned above, it is not enough in the discussion concerning the reason why hypokalemia was evident in patients with CAP and RB. Hypokalemia is inconsistent with the muscle injury associated with its destruction. The more persuading argument on hypokalemia is necessary.

Response:Thank you for your question, as the answer above, patients mainly have respiratory alkalosis. Low potassium is related to respiratory alkalosis, but also due to poor eating during the disease or the sweating after the use of antipyretic drugs. After sweating, the patient's extracellular fluid volume

decreased, activating renin-angiotensin-aldosterone system, and promoting potassium excretion. In this study, the degree of skeletal muscle damage caused by CAP is lower than that caused by strenuous exercise, so that the leakage of potassium ion from cells is not serious. Serum potassium level is also affected by renal function. Although patients have AKI or oliguria, the treatment is so timely that the renal function did not deteriorate. Considering the above multiple factors, there was no high potassium or even low blood potassium level.

3) Although oxygenation index and pH were depicted in Table 4, PaCO2 values were not presented. This is indispensable for judging the contribution of respiratory alkalosis to the cases. It is required for the authors to have a reasonable discussion about the basic mechanism regarding blood alkalosis (respiratory or metabolic), which is contradiction to muscle injury.

Response:The above table shows the levels of PH and PaCO2 in blood gas analysis. Most of the patients have respiratory alkalosis, which is related to fever and hypoxia. The degree of RM caused by CAP is lower than that caused by vigorous exercise. With the early treatment and intervention control as well, the progress of RM was controlled in time. So there is no typical manifestation of metabolic acidosis.

4) The reviewer supposes that authors have all the data for CAP with and without RB detected in the authors' hospital. If so, it may be helpful for readers to know the incidence rate of CAP with RB among all the CAP in the authors' hospital. Of the matter of course, such a rate does not indicate that in China or over the world but may be useful for each reader to consider the CAP situation in his (her) country.

Response:We agree with you very much. Unfortunately, due to the limitation of medical record system and personnel, we may not be able to collect all cap and RM cases.There may have been the misdiagnosis of atypical rm as well.

The CAP patients in our hospital are relatively heavier, and some of them have undergone initial treatment in other institutions, which may lead to an unrepresentative incidence. It is hoped that more efforts will be devoted to the further study of the disease in the future.

5)Of 11 patients with CAP with RB, three patients showed increased serum antibody titer of Mycoplasma but other causative microorganisms, including Legionella, Streptococcus pneumoniae, influenza viruses, and so forth, were not detected. This is one of the serious points in this study and it is needed to state what kinds of microorganism detections were performed in a more detailed manner. Furthermore, this point should be highlighted in the text as one the study limitations.

Response:This study reviewed hospitalized patients from January 2012 to June 2018. The sputum bacteria, fungi, tuberculosis smears and cultures were repeated detected in hospital. The blood bacteria culture and the antibodies of mycoplasma, chlamydia and Legionella were also detected. The number of patients included in this study is relatively small and some of them have undergone initial treatment in other institutions, resulting in no definite etiological results. Fortunately, most patients have been treated well with empirical therapy. It is precisely because of the definite efficacy of the initial treatment that patients refuse a further tracheoscopy or puncture biopsy to identify the etiology. At the end of 2018, the sputum nucleic acid amplification test was carried out in our hospital. A new case of CAP combined with RM showed Streptococcus pneumoniae by sputum nucleic acid amplification test. This study enables us to better identify patients with CAP secondary to RM. Look forward to more rigorous and comprehensive pathogenic detection to provide better help for treatment, and also prompt the prevalence and etiology stydy of the disease in our region.