

A Case Report : *Neisseria sicca* Pneumonia in an immunocompetent patient

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**Introduction:** *Neisseria Sicca* is a commensal organism belonging to the genus *Neisseria*. There are multiple strains of this species, some of which are reported to have caused septicemia in immunocompromised patients. We report the case of a 45-year-old immunocompetent woman who was diagnosed with *Neisseria Sicca* pneumonia. **Case:** A 45 - year - old woman without medical history was transferred to an outpatient clinic suspecting pulmonary tuberculosis. In local clinic, pneumonic consolidation had not improved after appropriate antibiotics treatment and then chest CT was taken which revealed multiple centrilobular nodules with patch consolidation in superior segment of right lower lobe(RLL). The patient underwent bronchoscopy with bronchoalveolar lavage at RLL. At BAL fluid examination, AFB stain, AFB culture, TB-PCR were all negative and *Neisseria Sicca* (*N. Sicca*) was isolated at bacterial culture. For *N. Sicca* pneumonia, 3rd generation cephalosporin, cefditoren pivoxil 100mg tid was administered to patient for 14 days. After one month, chest CT of her showed that multiple centrilobular nodules and patch consolidation were cleared. **Discussion:** Most of *Neisseria* genus are normal inhabitants of the upper respiratory tract and are not considered pathogens. Up to date, only *N. meningitidis*, *N. gonorrhoeae*, *N. mucosa* and *N. sicca* have been reported as causative agents of pneumonia, empyema, bronchopneumonia or bronchiectasis with various clinical severity. Most patients of case reports are immune-compromised status or underlying structural lung disease. In this report, we observed that *N. Sicca* can play a pathogenic role in immunocompetent patients without other pulmonary disease. **Conclusion:** *N. Sicca*, so-called non-pathogenic *Neisseria*, can cause asymptomatic pneumonia in immunocompetent adult.

## Relation between nutrition support and 28day mortality using modified NUTRIC score in septic patient

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**Background:** NUTRIC(NUTrition Risk in Critically ill) score, an intensive care unit (ICU)-specific nutrition risk assessment tool has been validated in many studies. We aim to compare the accuracy of NUTRIC score with modified NUTRIC score for predicting 28-day mortality and to investigate the relation between nutrition support and 28-day mortality using the modified NUTRIC score in septic patients. **Methods:** This was a retrospective cohort study in the medical ICU of a tertiary referral hospital. We included sepsis cohort patients in Asan Medical Center admitted between January 2011 and December 2016 who were at least 18 years old and stayed for more than 24 hours in ICU. Nutritional support was categorized into <20, 20 to <25, ≥25 kcal/kg for energy intake and <0.8, 0.8 to <1.2, ≥1.2 g/kg for protein intake at day 7 from ICU admission. **Results:** A total of 493 patients were analyzed. The area under the curve (AUC) of NUTRIC score and modified NUTRIC score for predicting 28-day mortality was 0.762 (95% confidence interval [CI] 0.718-0.806), 0.755 (95% CI 0.711-0.799). In high score group (≥5) of modified NUTRIC score, higher energy intake group was significantly associated with lower mortality (20 to <25 kcal/kg: adjusted odds ratio [aOR] 0.358, 95% CI 0.164-0.780; ≥25 kcal/kg: aOR 0.342, 95% CI 0.171-0.683). Higher protein intake group was significantly associated with lower mortality (0.8 to <1.2 g/kg: aOR 0.369, 95% CI 0.196-0.693; ≥1.2 g/kg: aOR 0.352, 95% CI 0.147-0.839). In low score (<5), higher energy intake group was significantly associated with lower mortality (20 to <25 kcal/kg: aOR 0.185, 95% CI 0.046-0.744; ≥25 kcal/kg: aOR 0.111, 95% CI 0.032-0.384). Higher protein intake group was significantly associated with lower mortality (0.8 to <1.2 g/kg: aOR 0.128, 95% CI 0.040-0.407; ≥1.2 g/kg: aOR 0.109, 95% CI 0.021-0.582). **Conclusions:** The modified NUTRIC score would be a good nutrition risk assessment tool in septic critically ill patients. High score group (≥5) of modified NUTRIC score was associated with high mortality. And sufficient nutrition support within 1 week may improve 28-day mortality in patients with both high and low modified NUTRIC score.