but dAbCl-23 increased LPS-induced TNFα levels in Swiss albino mouse model.

**Conclusion:** In conclusion, dAbCl-26 was able to neutralize LPS-induced effects in murine and buffalο macrophages, and in vivo in mice.

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**Type:** Poster Presentation

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**Study on the frequency of spa gene in Staphylococcus aureus isolates from human infections and its relationship with mecA gene**

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**Background:** Staphylococcus aureus is the most important cause of nosocomial infections acquired in the community. Today, S. aureus has been known as one of the most important global problems because of its high virulence and increasing resistance to antimicrobial drugs. Due to the high mortality rate of nosocomial infections associated with methicillin-resistant S. aureus, identification and knowledge of the regional model is necessary for the proper treatment of infections caused by this organism. On the other hand, genotyping of the isolates of this bacterium can be widely used because we can identify the source of infection. The molecular techniques have been developed to determine the genetic of the isolates. One proposed method is examination of polymorphism X region of the protein A gene (Spa) by PCR method. This region is one of the distinguishing factors and different patterns of this gene have been identified in various studies. Typing the isolates of S. aureus using Spa gene can be a useful method for epidemiological studies.

**Methods & Materials:** In this study, 115 samples of S. aureus isolated from human infections after culture on blood agar and mannitol salt agar and catalase and oxidase tests were examined by PCR.

**Results:** PCR method using Sau primers showed that 103 (89.6%) out of 115 isolates revealed as S. aureus. Isolates for mecA gene were 96 (85.3%) positive and 7 (6.8%) negative. Ninety one (88.3%) and 12 (11.7%) were positive and negative for Spa gene respectively. A total of 86 (79.2%) were positive for both genes. Ten (8.9%) samples were positive for mecA gene, not for Spa gene. 5 (4.8%) were negative for mecA gene, and 2 (1.9%) were negative for both genes.

**Conclusion:** All differences between the groups using non-parametric chi-square test were significant (P=0.04). In general conclusion, this study showed that most MRSA have virulence genes such as Spa and play a critical role in nosocomial infections.

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**Meningococcal pneumonia in Japan: A case report and review of the literatures**

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**Background:** Although previous report showed that Neisseria meningitidis (N. meningitidis) was detected from oral cavity of healthy Japanese volunteers, pneumonia caused by this pathogen is very rare in Japan. Here, we present a case of non-invasive meningococcal pneumonia and review case reports in Japan.

**Methods & Materials:** We searched Japanese case reports of meningococcal pneumonia with Pubmed and the search engine operated by Japan Medical Abstracts Society. The data including the present case were pooled into the following categories for analysis: age, sex, co-morbidities, travel history, symptom, present of bacteraemia, patterns of chest images, treatment, prognosis, and serotype of N. meningitidis.

**Results:** We found 15 cases in the 9 literatures published between 1984 and 2015. The median age of the patients was 42.0 years (range: 18 to 78 years), and men were predominant (68.8%, 11 of 16 patients). The most common underlying condition was respiratory diseases (50.0%) such as asthma, chronic obstructive pulmonary disease, interstitial pneumonia, and diffuse panbronchiolitis. The second most underlying disease was mental disorder (25.0%). Two patients (12.5%) had a travel history. Fever, cough, dyspnea, disturbance of consciousness, and chest pain were noted in 68.8%, 62.5%, 25.0%, 12.5%, 6.3%, respectively. Blood cultures were positive in 2 of 16 cases (12.5%), but no patient developed meningococcemia despite the present of bacteraemia. Bilateral chest infiltration was observed in 2 cases (18.2%), and right- and left-sided pneumonia were 7 (63.6%), 1 (9.1%), respectively. Beta-lactams were used in 11 cases (78.6%). All cases were cured with appropriate antibiotics. Serogroup B meningococci were identified in 5 cases (31.3%). There were 3 cases of nosocomial transmission and one case of intra-familial infection.

**Conclusion:** In our study, there was no meningococcal pneumonia with meningitis. All cases were recovered by prompt and appropriate treatments. We reconfirmed that meningococcal pneumonia was very rare in Japan, particularly after 2009. Since national survey of invasive meningococcal disease has started from April 2013 in Japan, the case report of meningococcal pneumonia might be increased in the future.

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