The condition of mycoplasma infection in patients with systemic lupus erythematosus

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Background: To comprehend the relationship between the mycoplasma infection and systemic lupus erythematosus.

Methods: Mycoplasma hominis, Ureaplasma urealyticum, and Mycoplasma fermentans were studied by nested polymerase chain reaction in eyelid, throat, urethra and blood of 80 patients with systemic lupus erythematosus.

Result: 65.0% of patients with systemic lupus erythematosus showed the mycoplasma infection at one or more positions ($\chi^2 = 17.33, P < 0.01$), in which 12.5% of patients with that showed the mycoplasma infection at two positions and 6.2% of patients showed the mycoplasma infection at three positions. 22.4% of patients showed the mycoplasma hominis infection in the throat ($\chi^2 = 3.89, P < 0.05$), and 28.2% of patients showed the Ureaplasma urealyticum infection in the urethra ($\chi^2 = 5.20, P < 0.05$).

Conclusion: There were mycoplasmas infected in several positions of patients with systemic lupus erythematosus. The risk of contracting systemic lupus erythematosus for the subject infected with mycoplasma was 16 times for the control.

Factors relevant to prognosis of 166 patients with varicella

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Objective: To analyze factors correlative with prognosis of patients with varicella.

Methods: Data of 166 patients with varicella treated in The Third Affiliated Hospital of Sun Yat-sen University were collected. All the patients were observed for one week. Correlative analysis of prognosis (recovery, improvement, no change, death) of patients with varicella and 16 variables were done. These variables included sex, age, patient sources, seizures season, disease course, history of contacting with varicella patients, underlying disease, hormone usage, fever, fever course, clinical symptoms except chickenpox (sore throat, cough, abdominal pain or diarrhea, etc.), complications, bacterial infections, antibiotics usage, Aciclovir usage and ribavirin usage. All the data was carried out with software SPSS 13.0. Chi square test was used to compare observed rates, while Logistic regression methods was used to analyze correlation between prognosis and observed factors.

Result: Among 166 patients with varicella, 110 cases (66.3%) recovered completely, 41 cases (24.7%) were improved, pathogenetic condition of 9 cases (5.4%) had not changed, 6 (3.6%) were dead before discharge from hospital. Single factor analysis demonstrated that disease course, underlying disease, hormone usage, fever, clinical symptoms except chickenpox and Aciclovir usage were correlative factors to prognosis of patients with varicella ($\chi^2 = 7.869-25.934, P = 0.000-0.049$). The multivariate Logistic regression analysis suggested that only disease course (OR = 12.284, P = 0.000), hormone usage (OR = 5.396, P = 0.020) and Aciclovir usage (OR = 8.486, P = 0.004) were correlative factors to prognosis. Prognosis of these patients with disease course above 10 days, hormone usage and without Aciclovir were worse than that of others.

Conclusions: Disease course, hormone usage and Aciclovir usage were correlative factors to prognosis of patients with varicella. These results would contribute to better treatment to patients with varicella.

Using of nanosilver as a disinfectant in-vitro and onto hospital surfaces and duration of effect

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Background: Nanosilver has been showed superior antimicrobial activity towards various microorganisms. The aim of this study was to determine in-vitro activity of Nanosilver as a disinfectant and the effect of Nanosilver on environmental bacterial and fungal colonization onto the hospital surfaces.

Methods: At first, sampling, culture and sensitivity pattern of some surfaces have been done. Next, in-vitro antimicrobial activity of antisepsics against microorganisms was assessed by using disinfectants included Nanosilver, Deconex 50 AF and Descocid. Finally, assessment of disinfectant activity on environmental bacterial & fungal colonisation and the duration of effect were performed in three rooms of the infectious diseases ward.

Results: In-vitro study showed that S. aureus and coagulase negative Staphylococcus were eradicated after 5 minutes contact with each of disinfectants. All of used disinfectants could eradicate Pseudomonas after 5 minutes but Nanosilver 5ppm. Bacillus was eradicated by Deconex 2% within 30 minutes and by Descocid 2% and 4% within 5 minutes but Nanosilver effect was different. Aspergillus and Penicillium were eradicated by Nanosilver 80, 100, 150 ppm, Deconex 2%, Descocid 2% and 4% after 5 minutes contact. Assessment of disinfectant activity on the environmental surfaces showed a significant difference between the mean amounts of organisms before and after washing in paired T-test.

Conclusions: Washing of surfaces at least twice daily can be suitable to eradicate environmental Staphylococcus, bacillus and fungi. We must consider recontamination of hospital surfaces which can occur normally.

Quality control of specimens from respiratory tract using threshold cycle (Ct) values of ribonuclease P (RNase P) gene for investigation of the influenza A (H1N1) by real time PCR approach

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Background: The novel influenza A (H1N1) virus is now rapidly spreading across the world. Early detection is one of the most effective measures to prevent further transmission of the virus. However, there is no report regarding the type of specimens that yield the best result of the Influenza virus detection and sufficient amount of cells in the sample.

Methods: The RNase P real time PCR were performed using four types of specimens, including Nasopharyngeal swab (NPS), Throat swab (TS), Nasal swab (NS) and Tracheal aspiration (TA). The RNase P Ct value were then determined