PP-227 The pathogenesis during enterovirus 71-induced HFMD
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Enterovirus 71 (EV 71) is one of the major etiological agents of hand foot and mouth disease (HFMD), which is a neuro-tropic pathogen that has been associated with many severe central nervous system (CNS) diseases and complications in infected infants' patients. Several studies showed that EV71-induced immune responses, cytokines storm, neural apoptotic cell death and specific receptors may be associated with the neural pathogenesis of HFMD. Here reviewed the progress of research on host potential factors. And this may help to better understand the neural pathogenesis of EV71-induced HFMD.

PP-228 Resistance exercise-induced reduction of inflammatory cytokines was associated with decreased percent body fat in obesity
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Background: Obesity-induced chronic inflammation is a key component in the pathogenesis of obesity related diseases. It is characterized by elevated circulating levels of inflammation markers. The long term resistance exercise results in health benefits. Resistance exercise improves the metabolic state, and is associated with reduced risk of low grade inflammation related diseases. Recent studies have demonstrated an important physiologic link between inflammation and fat. Increased body fat may also be associated with elevated inflammatory cytokines. The purpose of this study was to assess the effect of resistance exercise on the percent body fat and plasma CRP, IL-6, SAA levels, and investigate the association body fat with inflammation.

Methods: Twenty-two obese male students (21.3 ± 2.5 years, BMI was 28.7 ± 3.2 kg/m2) were randomly assigned into either control (CG, n = 10) or exercise (EG, n = 12) groups, EG performed resistance training with 3/week for 18 weeks with intensity around 70% of IRM. The plasma concentration of CRP, IL-6, SAA were determined by ELISA, and the percent body fat was detected by bioelectrical impedance method before and after exercise.

Results: Compare with CG, the plasma CRP and SAA, and the percent body fat were significantly decreased in EG after exercise [(2.12 ± 1.07 ng/ml) vs (1.23 ± 0.96 ng/ml) P < 0.05; (43.29 ± 18.25 µg/ml) vs (26.92 ± 12.37 µg/ml) P < 0.01; (28.32 ± 2.43%) vs (25.15 ± 2.67%) P < 0.05, respectively]. A positive correlation was found between CRP level and percent body fat (r: 0.412, p: 0.003). Furthermore, the level of SAA have shown a positive correlation with percent body fat (r: 0.375, p: 0.002).

Conclusion: Resistance exercise can decrease percent body fat and reduce inflammation in obesity. The reduced inflammation is was associated with decreased percent body fat in obesity.

PP-229 Role of alcohol based hand rub on latex gloves for prevention of hospital acquired infections
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Background: In era of multiple drug resistant organisms and HIV/AIDS, major problem of present day is to control hospital acquired infections (HAI). Major mode of HAI is spread of microbes through contaminated hands of health care providers. Therefore it is mandatory to either wash hands with antiseptic soap and water or alcohol based hand rub or change gloves in between patients. But in developing country like India where number of patients per doctor or nurse are very high, financial restrictions, lack of strict regulations and sometimes due to urgency of situation, there is tendency of hospital staff to avoid changing gloves in between patients. Further they can not use alcohol based hand rub over gloves because it is not recommended due to chemical incompatibility. Therefore we evaluated efficacy of alcohol based hand rub over bare hands and hands wearing latex gloves.

Methods: Hands of ten healthy volunteers were contaminated with 2 ml overnight broth culture of Escherichia coli ATCC25922 and baseline level were determined by glove juice technique. Following a single hand rub, using 70% ethanol, count of surviving bacteria was done. Log10 reductions from baseline were calculated. Same procedure was repeated on hands with gloves.

Results: There was no significant difference in efficacy of alcohol hand rub over hands with or without gloves (2.7 and 2.68 Log10 reduction of bacterial load respectively). We also checked effect of alcohol hand rub on porosity of latex gloves and found that even after 3 hours of regular use and frequent alcohol rub, latex gloves did not become porous to permit transmigration of Escherichia coli ATCC25922 through its surface.

Conclusion: Alcohol hand rub is equally effective on gloves and it is better to use alcohol rub over gloves to attend every patient without changing them. Further there is need to develop better gloves made of an alcohol compatible material.

PP-230 Attitude and knowledge of paramedical staff towards ventilator associated pneumonia in critical care: a Mongolian study
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Background: Ventilator-associated pneumonia is the most common infectious complication among patients admitted to intensive care units (ICUs) and accounts for up to more than 50% of all infections among ICU patients in one of the private hospital in Ulaanbaatar, Mongolia. It prolongs ICU length of stay and increases the risk of morbidity and mortality in critically ill patients. The aim of this study was to evaluate the knowledge of evidence based practice help among paramedical staff to reduce the risk of ventilator-associated pneumonia.

Methods: 25 nurses were selected for the study from critical care area. Knowledge was assessed through a self-developed tool, consisting of multiple choice questions, based on Centers for Disease Control and Prevention (CDC) guide lines. The difficulty index and discrimination index were calculated and the reliability analysis, to calculate Cronbach’s alpha coefficient, was also carried out using SPSS 12.0.