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Clinical Features of Co-colonization of Methicillin Resistant Staphylococci and Vancomycin Resistant Enterococci

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Background : Glycopeptides overuse has led to the emergence of vancomycin-intermediate and vancomycin-resistant methicillin-resistant Staphylococcus aureus (MRSA) (VISA and VRSA, respectively). The clinical isolate of VISA have now been reported worldwide and to date, four VRSA isolates have been identified in the USA. Recent evidence also supports the transfer of genetic material among bacteria as contributing to the development of VRSA. Therefore, the co-colonization and co-infection of methicillin-resistant staphylococci(MRS) and vancomycin resistant enterococci(VRE) may facilitate the emergence of VRSA due to proximity of location for transfer of transposons or plasmids which carry the genes that express vancomycin resistance such as vanA. **Methods** : We performed the retrospective cohort study and reviewed the medical records of patients whose culture were positive for VRE from Jan. 2006 to Dec. 2006 at Severance hospital. Co-colonization was defined as VRE and MRS were all positive in culture which was performed in the same clinical specimen at the same time. **Results** : Among 500 patients, total 33 (6.6%) had co-colonization with VRE and MRSA or methicillin-resistant coagulase negative staphylococci (MRCNS). The mean age of 33 patients was 55.4±16.5 years (range, 20 to 84 years). There were 18 (54.5%) male and 15 (45.5%) female. The most common isolated site was wound (N=9, 27.3%) followed by urine (N=8, 24.2%), catheter tip and blood (N=4, 12.1%, respectively), peritoneal fluid and oral cavity (N=3, 9.1%, respectively), bile and throat (N=1, 3%, respectively) in the order. The staphylococcal species cultured with VRE were 18 MRSA(54.5%) and 15 MRCNS(45.5%). The most common major underlying disease was solid cancer (N=10, 30.3%) followed by hematologic malignancy(N=6, 18.2%). 20 patients(60.6%) had the prior hospitalization history within 1 year from the day of co-colonization and mean hospital day was 84.6±55.9 days. The mean duration from admission to co-colonozation was 48.8±51.2 days. **Conclusion** : The rate of co-colonization or co-infection of MRS and VRE is expected to be increased. Therefore, clinicians should be concerned about appropriate infection control practices to prevent the emergence of VRSA.

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Predictors for High Diagnostic yield of 18F-FDG PET/CT in FUO

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Background : Several studies showed that 18F-FDG PET/CT was valuable in the diagnosis of malignant diseases. But only limited studies have evaluated its usefulness in the FUO patients. We have examinated the diagnostic value of 18F-FDG PET/CT as a investigation in FUO patients and analysed the predictors which 18F-FDG PET/CT were helpful potentially to the diagnosis. **Methods** : From January 2005 through April 2007, 75 patients who met the definition criteria of classical FUO in Kangnam St. Mary's Hospital of Korea were reviewed retrospectively. **Results** : In 30 patients, 18F-FDG PET/CT was performed as FUO study. Twenty-four (80 %) of the 30 18F-FDG PET/CT showed abnormal findings, and eighteen scans (60 % of the total scan or 75 % of the abnormal scan) were considered helpful clinically. The causes of fever were determined in 24 patients of 30 18F-FDG PET/CT, which included malignancy (60%), infection (10%), miscellaneous causes (10%), noninfectious inflammatory disease (6.7%). In four (13%) of 30 18F-FDG PET/CT, cause of fever could not be determined. C-reactive protein and LDH were significant predictors for value of 18F-FDG PET/CT (p value=0.006, 0.02). **Conclusions** : 18F-FDG PET/CT is a useful imaging investigation for FUO patients whose laboratory findings showed raised CRP and LDH especially.