230. Clinical Features and Treatment Outcomes of Bone-Joint Infection Between Bacteria and Mycobacterium Tuberculosis
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Bone-joint infection is an emergency condition that requires immediate management. Delayed in treatment or improper management can lead to a significant morbidity and mortality.

Methods. The medical records of patients with bone-joint infection seen at Maharaj Nakorn Chiang Mai Hospital between 1 November 2010 and 30 September 2015 were reviewed. The diagnosis of bone-joint infection was confirmed by pathogen identification or pathohistological report. Only those with adequate clinical features and treatment outcomes were included for analysis.

Results. Of 125 bone-joint infected patients seen during the study period, 92 patients were caused by bacterial infection and 33 from tuberculous infection. Their mean age was 39.7 ± 8.5 years, and had total disease duration of 7.1 ± 8.2 months. Sixty-four percent were men. Of 33 TB cases, 24 (72.7%) had spinal involvement. Among 92 cases with bacterial infection, 52 (56.5%) had non-spinal joint involvement, and 38 (41.3%) had non-spinal bone involvement. Regarding clinical features, TB cases had longer duration of symptoms of 5.3 ± 6.1 months. Multivariate logistic regression analyses showed that neurological manifestations (adjusted OR = 3.141, 95% CI 1.44–6.831, P < 0.001), pulmonary symptoms (AOR = 222.1, 95% CI 3.0–16.560, P = 0.014), symptom duration over 1 month (AOR = 67.4, 95% CI 4.2–1070, P = 0.00) were risk factors of TB bone-joint infection. There were 120 (96.0%) patients with clinical improvement, and five (4.0%) died patients. There were no significant differences among AOR 4.7, 95% CI 1.1–19.9, P = 0.039) and, CRP <30 mg/l (AOR = 7.0, 95% CI 1.6–31.2, P = 0.010) were risk factor of TB bone-joint infection. The detection rate of CT and NG among the overall population was assessed in addition, the detection rate of CT by age and gender were also evaluated.

Conclusion. Distinguish of bone-joint infection between bacteria and mycobacterium tuberculosis is difficult. However, patients with TB bone-joint infections significantly had more symptom duration over 1 month, the presence of paraplegia, the presence of pulmonary symptoms, and the presence of tubercle illness than those with bacterial infection. There were no significant differences among treatment outcomes and mortality between the two groups.

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231. Factors Associated with Not Using a Condom at Last Sex Among Sexually Active US Navy and Marine Corps Personnel Across a Shipboard Deployment Cycle
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Background. Condom use is highly effective in preventing sexually transmitted infections (STIs); however, data on this are limited among US military personnel who may be at a higher risk for STI acquisition across a deployment cycle. This study examined factors associated with no condom use at last sex as three time points, pre- (T1), during (T2), and post-deployment (T3), across a US military shipboard deployment cycle.

Methods. Data were collected among active duty US Navy and Marine Corps personnel assigned to 11 deploying ships using an anonymous, voluntary, self-completed survey, including demographics, condom use at last sex, sexual risk behavior, STI diagnosis, alcohol use, drug use, social and generalized regression model analyses were conducted to determine the effects of main exposures after adjusting for demographic characteristics, with statistical significance defined as P < 0.05. When longitudinal data were included, generalized estimating equations were used. Models included their interaction with time.

Results. Among participants, n = 1,900 (T1), n = 549 (T2), and n = 1,168 (T3) reported age and sex, were sexually active, and included in the analysis. The proportion of individuals who used a condom at last sex was significantly higher during T2 (53%, P < 0.001) than T1 (27%) and T3 (28%), with an STI prevalence of 1% (T1), 7% (T2), and 2% (T3). In adjusted models, participants not using a condom at last sex were significantly more likely to report an STI diagnosis (OR 2.26, 95% CI 1.19–4.28), screen positive for hazardous alcohol use (OR 1.44, 95% CI 1.21–1.71), and use drugs to enhance sex (OR 1.37, 95% CI 1.06–1.77), but less likely to engage in transactional sex (OR 0.69, 95% CI 0.50–0.94). Associations between condom use and main exposures did not differ significantly by time point.

Conclusion. Although condom use was significantly higher during T2, STI prevalence remained high, which suggests those who do not use a condom during deployment are at a higher risk for STI acquisition than pre- or post-deployment. These data may inform interventions targeting high STI acquisition risk individuals and time periods to increase condom use.

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Table 1: The positive rate of detection of CT and NG

| Item | Gender | Positive number | Positive rate (95% CI) (%) |
|------|--------|-----------------|--------------------------|
| CT   | Male (n = 4606) | 214 | 2.39 (2.22–2.56) |
|      | Female (n = 5904) | 245 | 4.15 (3.64–4.66) |
|      | Total (n = 10,510) | 369 | 3.51 (3.16–3.86) |
| NG   | Male (n = 4606) | 5 | 0.11 (0.01–0.20) |
|      | Female (n = 5904) | 5 | 0.08 (0.00–0.16) |
|      | Total (n = 10,510) | 10 | 0.10 (0.04–0.15) |

CT: chlamydia trachomatis; NG: neisseria gonorrhoeae; CI: confidence interval.