spa type t030, t037 and t067. All MRSA isolates were divided to 11 types and about 20 subtypes with *coa* typing method here. The discriminate power of this *coa* typing method was better than MLST or *spa* method.
Conclusion: It demonstrated that this sequence-based *coa* typing method was a simple, rapid and effective technique applicable for outbreak or local nosocomial MRSA investigations in the future.

OL-036 Detection *Streptococcus pneumoniae* and identification of serotype in cerebral spinal fluid of childhood bacterial meningitis in China

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Objective: We aimed to a) apply PCR for identification of *S. Pneumoniae pneumolysin* from cerebral spinal fluid samples of patients with bacterial meningitis; b) apply nested PCR for detection of serotype (serogroups) of S pneumonia cpsA-cpsB combined with sequencing and serotype (group) specific PCR.
Methods: From January 2006 to December 2008, a total number of 111 CSF samples of cases strictly met bacterial meningitis diagnosis criteria were investigated.
Results: Combining positive finding by all PCRs and culture, the positive ratio of *S. pneumoniae* meningitis was 14.4% in this study. The serotype was identified in 9 cases. The distribution was two serotype 14, two serotype 10A, and one for each serotype 2, 5, 19F, 9N and 23 F separately. It was different with the carriage studies in China and others with respiratory infection studies.
Conclusions: Serotype study including more bacterial meningitis cases should be included to obtain a more complete description of invasive *S. pneumonia* serotype distribution.

Free Paper Presentation 7 – HIV/AIDS/STD

OL-037 Cross-drug resistance of harboring drug resistant HIV-1 subtypes B' strains isolated from Chinese Center Regional former donor blood patients experienced HAART treatment

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This study analysed the genetic and phenotypic cross drug resistance of harboring resistant viruses from therapy failure AIDS patients in order to better design anti-HIV-1 regimens for future treatment of HIV/AIDS patients in China.
65 AIDS patients (49 for D4T/DDI/NVP treatment; 16 for AZT/DDI/NVP treatment) were recruited and the drug resistance was analysed using plasma RNA extract,RT-PCR and sequence. HIV viruses were further isolated from the patients' PBMC and used for phenotypic drug resistance by an *in vitro* susceptibility drug test.
All the patients were infected by HIV-1B' subtype and harbored drug resistance to HIV-1 nucleoside reverse transcriptase (RT) inhibitors, in which 98% is NVP, 51% is AZT, 60% is D4T, 57% is DDI. In these HIV-1 viruses harboring resistant strains, there are 100% cross drug resistance to EFV, 92% to DLV, 77% to TDF, 42% to 3TC, 42% to FTC, and 84% to ABC in these therapy regimen without ABC, 3TC, FTC, TDF, EFV and DLV. Phenotypic drug resistance showed that the accordance rate between genotypic drug resistance and phenotypic drug resistance in high and intermediate drug resistance of 3TC, FTC, EFV and ABC is 72%, 78%, 94% and 89% respectively.
There is cross-drug resistance to HIV-1 nucleoside reverse transcriptase (RT) inhibitors of Chinese AIDS Patients harboring resistant strains especially EFV and then ABC, FTC and 3TC. This information will help to rationally design more efficient anti-HIV-1 regimens for future treatment of HIV/AIDS patients in China.

OL-038 NRTIs' effects on the quantity of mitochondrial DNA and HR II in HIV/AIDS patients

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Aim: To know NRTIs' effects on the sequences of hyper variable region (HR) of mitochondria and the quantity of mitochondrial DNA (mtDNA).
Methods: 32 HIV/AIDS patients who were receiving ART for more than 3 years in which 17 had lipodystrophy had been studied. PBMC were collected at baseline, 6-month, and 2-year after ART. Total DNA was extracted from PBMCs. MtDNA were examined using real time PCR. About 700bp fragment which contains HR II of these individuals PBMCs were amplified by standard PCR. Alterations were determined by DNA sequencing assay and comparing with the revised Cambridge Reference Sequence.
Results: mtDNA's quantity decreased at 6-mouth and 2-year of ART compare with that of basement. 6 new mutations appeared in 5 individuals with lipodystrophy at 2-year of ART compared with basement.
Conclusions: NRTIs could reduce mtDNA's quantity of PBMC and might induce mutation. More comprehensive study should be developed.

OL-039 Initial viral loads and CD4 counts in a cohort of adolescents presenting with HIV infection

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Background: Little data exists about adolescents who acquire HIV behaviorally and present with CD4 counts meeting US guidelines for HAART initiation.
Methods: Retrospective record review was performed recording initial CD4 counts, viral loads for new adolescent patients. Threshold for medication initiation was 350 cells/μl or less.
Results: 52 records were reviewed. Nearly 1/3 (31%) met criteria for therapy, with 33% of patients 18 to 21 versus 24% of those less than 18 years of age meeting criteria. 38% of males met criteria vs. 23% of females. Average viral load of those under 18 was 46,183 vs. 72,902 for those over 18.

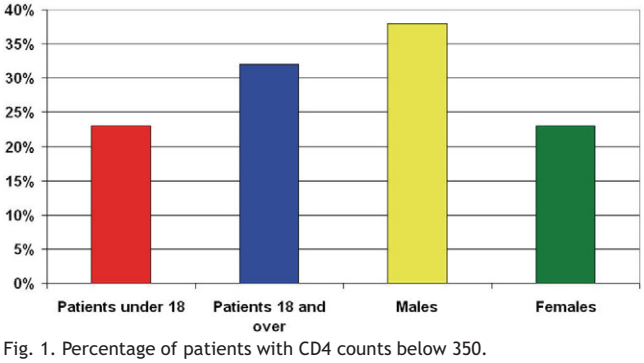

Fig. 1. Percentage of patients with CD4 counts below 350.

Conclusions: Almost a third of all adolescents and nearly a quarter of those under 18 met criteria for HAART initiation at first visit. Surprisingly, these young, presumably newly infected individuals meet criteria for anti-retroviral therapy early in disease. Efforts to identify HIV-infected adolescents must be intensified at all ages