Prevalence of pneumonia cases during the Hajj season

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Background: The congregation of so many people during Hajj seasons from different parts of the world in unavoidably overcrowded conditions within a confined area for a defined period of time presents many public health challenges, and health risks are greatly increased. One of the main health problems correlated with Hajj crowding is pneumonia due to its ease of transmission by air droplets.

Method: A total of 92 suspected patients with pneumonia from the three main tertiary hospitals in Makkah were investigated during the 2005 Hajj season. Sputum and serum samples were collected and investigated for possible presence of typical or atypical causative agents using the standard identification techniques.

Results: Clinically, most of the patients came with typical pneumonia symptoms. More than 60% of the patients were above 60 years old and 58% were men. The most frequent isolates were Pseudomonas aeruginosa (27%) followed by Candida spp, (27%) and 83.67% of the infants have complications. The subjects of the children group showed the major symptoms as catarrhal, 70% of which with complications. Hepatic function in the adult group is significantly abnormal. In our 78 cases adult patients, the FCM results suggest CD4 cell count and CD4/CD8 decreased significantly, and CD8 increased significantly, also CD4 + CD45RA + was significantly lower than control group (p < 0.05), and CD8 + CD45RO + was significantly higher than control group (p < 0.05).

Conclusion: The use of measles vaccine greatly change its infectious spectrum. The emergence of new clinical characteristics give us challenges for its prevention and control. At the same time, further study of the measles infectious cellular immunity mechanism still needed.

Clinical characteristics and detection of human bocavirus in hospitalized children with acute lower respiratory tract infection in China

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Background: The newly identified human bocavirus (HBoV), a member of the Parvoviridae family, has been associated to low respiratory tract infections in young children.

Objective: To analyze clinical characteristics of HBoV infection through detection of HBoV DNA in sputum and serum in pediatric patients with acute lower respiratory tract infection (ALRTI) in Xi’an, China.

Methods: Sputum and acute-phase serum were collected from 228 children less than 14 years old admitted for ALRTI between January 2008 and January 2009 at the Department of paediatrics, of Xijing Hospital. sputum was used for HBoV DNA extraction and detection of common respiratory viruses. In addition, Sputum and acute-phase and convalescent-phase serum samples of children with positive HBoV DNA in Sputum were also tested for HBoV DNA and PVB19 DNA if they were obtained. Clinical characteristics of HBoV infection were analyzed. The HBoV infections with other respiratory viruses and PVB19 were also analyzed, PCR products with expected molecular mass was selected for DNA sequencing and were compared with the sequences of HBoV in the GenBank with clustalW software.

Results: HBoV was found in 14 (6.1%) samples. Infections with HBoV were most occurred in the winter and spring months. 73.3% of patients with HBoV infection were aged 6 months to 3-year-old. In common with other respiratory viruses infection, clinical manifestations included cough, fever, wheezing, diarrhea, hypoxia and length of stay. In 6 (42.9%) of the HBoV positive children, co-infections with other respiratory viruses were present. HBoV infections with other respiratory viruses and PVB19 were clinically similar to single infections except the wheezing, hypoxia and length of stay. The sequenced product (291bp) shared high nucleotide sequence homology (99.6%) with the prototype Stockholm 2 (st2, No. DQ00496) and two Beijing strains (No. DQ98934.2 and No. DQ98993.1) when compared with their sequences. Both HBoV DNA and PVB19 DNA were not detected in either sputum or the acute- and convalescent-phase serum of 14 patients whose sputum was positive for HBoV as determined by PCR.

Conclusions: HBoV is found in sputum of hospitalized for ALRTI in 14 children, children with HBoV infections with other respiratory viruses and PVB19 were prone to have wheezing, hypoxia and more days hospitalized.

A health systems approach to managing and integrating STI services in Cape Town, South Africa

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Background: In Cape Town, a metropolitan area in South Africa, programme and facility managers are committed to improving the effectiveness and integration of the STI programme. This is achieved with annual evaluations.

Methods: A standardized evaluation tool has been used: a review of routine information; a facility manager interview to assess availability of services and staff training; an inspection checklist to assess whether consulting rooms are appropriately equipped to support quality syndromic management consultations; a folder review to assess quality and integration of client care. Audit teams are made up of facility and programme managers.

Results: In October 2008, 146 health facilities and all their facility managers participated, and 1199 STI folders were reviewed (see Table 1, p. S99).

Conclusion: These results provide primary level facility managers with useful information to strengthen programme delivery in facilities, the key level of implementation. There are still missed opportunities in targeting STI consultations for further HIV prevention work.