

### 3<sup>rd</sup> International Congress on

# Bacteriology and Infectious Diseases

August 04-06, 2015 Valencia, Spain

## A serological investigation of infections in the etiology of schizophrenia, Cukurova Region, Turkey

Mahdi Marzi, Tulin Guven Gokmen, Begum Kayar, Farzad Heydar and Fatih Koksai  
Cukurova University, Turkey

**Introduction:** Schizophrenia is a chronic, severe and disabling brain disorder that affects approximately 1% of the world's population and the underlying mechanisms are not thoroughly understood. Recent studies supporting the hypothesis that infections especially Syphilis, Brucellosis, Chlamydiosis, Toxoplasmosis, Herpes Simplex Virus (HSV), Cytomegalovirus (CMV) and Bornavirus can cause psychiatric syndromes when they infect adults is well known and plays a role in the etiology of schizophrenia is increasing.

**Aim:** This study aimed to investigate relationships between various infections and schizophrenia in Cukurova region of Turkey.

**Materials & Methods:** A total of 172 patients with schizophrenia and 100 healthy individuals as controls attending Cukurova University Hospital and Adana Mental and Neurological Diseases Hospital who fulfilled the (DSM-IV) criteria were re-cruited in this study. All collected serums were analysed in terms of IgG levels of *Chlamydia* spp, *T. pallidum*, *T. gondii*, HSV1, HSV2, CMV and Bornavirus with ELISA.

**Results:** The results of patients and control group samples for CMV, HSV1, HSV2, *T. gondii*, *T. pallidum*, *C. trachomatis*, *C. pneumonia* and Bornavirus by EIA were 93%, 98%, 58%, 91%, 85%, 3%, 80%, 4% and 92%, 96%, 58%, 68%, 0%, 8%, 63%, 0% respectively.

**Conclusions:** Our findings showed that there were significant differences between seropositivity of *T. gondii*, *C. pneumoniae*, Bornavirus IgG antibodies among patients with schizophrenia compared to controls, suggesting the important role of infections in schizophrenia.

[marzimehdi@gmail.com](mailto:marzimehdi@gmail.com)

## Emergence of OXA-48 Carbapenem-resistant *Enterobacteriaceae* (CRE) among paediatric cancer patients in Egypt

Dina Mohamed Osama  
Modern Sciences and Arts University, Egypt

The spread of CRE species causing both nosocomial and community acquired infections, has become a worldwide major public health problem. Carbapenems are considered the last line of defense against multidrug-resistant gram-negative organisms; resistance to these agents reduces the treatment options that further lead to treatment failure. As a result, severe infections with CRE are associated with significant morbidity, and mortality. Therefore, there is an urgent need for rapid and sensitive methods for screening and identifying carbapenemase producers among carbapenem resistant isolates. A panel of 100 isolates from different clinical samples were collected in the Microbiology unit of the Children cancer hospital in Egypt. The isolates were identified using different conventional methods and confirmed by the automated Vitek 2 system. Antimicrobial susceptibility testing was performed using the Kirby Bauer disc diffusion method. Carbapenems MICs were determined by the automated Vitek-2 system. Phenotypic tests used for carbapenemase producers detection were; the screening medium ChromID Carba Smart, the RAPIDEC Carba NP test, and the Vitek 2 system.

Out of 100 isolates, 43 *Escherichia coli*, 50 *Klebsiella pneumoniae*, 3 *Klebsiella oxytoca* and 4 *Enterobacter cloacae* were identified. The Vitek 2 system showed that 66% of the isolates were carbapenem resistant. Ninety percent of the detected CRE isolates were classified as OXA-48 type and 10% only were classified as both KPC and NDM-1 carbapenemase producers. Ninety percent of the resistant isolates gave positive results with the Carba NP test and 10% gave negative results. The spread of this type of CRE isolates within this setting is very alarming and requires full attention and rapid implementation of strict infection control measures.

[dmosama29@gmail.com](mailto:dmosama29@gmail.com)