E. Coli: All bacterial strains were stored in brain heart infusion broth with 20% glycerol at -80 °C prior to use. In preparation for amplification, bacterial strains were grown on either MacConkey or nutrient agar overnight at 37 °C. *E. coli* strains.

DNA extraction: Samples of The tissue followed by DNA extraction by using standard procedure according to manufacturer's instruction. Polymerase chain reaction (PCR): Methodologies for PCR analysis are described elsewhere

Results: All ORT suspicious isolates were negative in PCR. Serotypes of 13 *E. coli* isolates from flocks' colibacillosis revealed most to be O2. There were three untypable strains in the present study.

Discussion: The purpose of this study was to examine ORT and *E. coli* from chickens by culture and PCR tests. A better understanding of the virulence mechanisms of the causative APEC strains are needed to guide the development of preventive measures.

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70.029

Comparative Evaluation of Eight Methods for the Detection of Methicillin-Resistant *Staphylococcus aureus* (MRSA)

H. Al-Talib[1,*], Y.Y. Chan[1], A. Al-Khateeb[2], H. Habsah[1], K. Al-Jashamy[1], M. Ravichandran[1]

[1] *Department of Microbiology and Parasitology, University Sains Malaysia, Kelantan, Malaysia*
[2] *Human Genome Center, University Sains Malaysia, Kelantan, Malaysia*

Emergence of Methicillin-resistant Staphylococcus aureus is responsible for nosocomial and community-acquired infections worldwide. Hence, a rapid and accurate diagnosis of methicillin-resistant S. aureus in the laboratory is a vital constituent in enabling control measures and early therapeutic decisions. The present study evaluated the performance and ability of 8 different methods for the identification of methicillin-resistant S. aureus. A total of 207 S. aureus clinical isolates consisting of 89 MRSA strains (oxacillin MIC $\geq$ 8 mg/L), 118 methicillin-susceptible S. aureus (oxacillin MIC $\leq$ 4 mg/L) were included in the study. The S. aureus strains were further confirmed by Staphylase-latex agglutination and tube coagulase tests. MRSA strains were evaluated by six different susceptibility testing methods namely, Chromogenic MRSA agar (CMRSA), Oxacillin resistance screen agar base (ORSAB), Kirby-Bauer disc diffusion test using 1 μg oxacillin disc (MHA-O), Mannitol salt oxacillin agar (MSO) and Mannitol salt cefoxitin agar with two different concentrations of cefoxitin [4 mg/L (MSC-4) and 6 mg/L (MSC-6)]. MRSA strains were further evaluated with two additional methods, namely, MRSA-screen latex agglutination test and mecA PCR. All these 8 tests results were compared to oxacillin E-test as gold standard. The mecA PCR and MRSA-screen latex tests results showed 100% sensitivity, specificity, PPV and NPV. After 24 h of incubation on CMRSA, ORSAB, MSO, MSC-4 and MSC-6 medium, 96.6%, 97.8%, 94.4%, 100% and 97.8% of the MRSA CMRSA (96.6% and 95.8%), ORSAB (97.8% and 96.6%), MSO (97.5% and 96.6%), MSC-4 (100% and 83.1%), MSC-6 (97.8% and 94.9%) and MHA-O (98.3% and 97.8%). It was found that MSO was the inexpensive test ($0.70) while MRSA latex was the most expensive method ($4.00). In conclusion, mecA PCR is the most accurate, reliable and low-priced ($1.60) method for the detection of MRSA from clinical samples.

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Viral Diagnostics (Poster Presentation)

71.001

Detection of the Rate and Genotyping of Hepatitis C Virus (HCV) Infection in Haemophilia and Thalassemia Patients in Iran

N.S. Naghavi[1,*], K. Samimi Rad[2], M. Salehi[3], R. Nategh[2], M. Shanesazzadeh[3]

[1] *Islamic Azad University of Falavarjan, Isfahan, Iran (Islamic Republic of)*
[2] *Tehran University of Medical Science, Tehran, Iran (Islamic Republic of)*
[3] *Isfahan University of Medical Sciences, Isfahan, Iran (Islamic Republic of)*

Background: Hepatitis C is one of the blood transmitted infectious diseases. The virus belongs to flaviviridae and has 6 major genotypes. Haemophilia and thalassemia patients, dialysis and drug injecting patients are at high risk of acquiring hepatitis C virus infection.

Methods: The rates of HCV infection were detected among 103 anti-HCV positive haemophilia and thalassemia patients in Isfahan province (Iran) by nested PCR. Then the genotypes of the isolated viruses detected by Reverse hybridization (Lipa) method

Results: 41% of the total 103 samples showed negative PCR results and 59% of them had positive PCR results. The rates of HCV infection was 60% in hemophiliacs and 58% in thalasemics. Also genotyping analysis in hemophiliacs and thalassemics detected type 1 in 59%, type 3a in 29% and type 6a in 8% of samples studied.

Conclusion: In the present study the predominant types of HCV in the patients were type 1 and 3a which is similar to results obtained from investigations in the other areas in Iran, but we detected mixed types in some patients and the type 6a in one patient. The type 6a is not a common type in Iran and not seen in previous studies. The origin of this type which detected in a hemophilia patient, may be from foreign concentrated clotting factors at the times in which the factors were not decontaminated with heating processes.

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