

Joint Meeting on
2nd Annual Congress on
Bacterial, Viral and Infectious Diseases
&
6th International Conference on Rare Diseases & Orphan Drug
June 17-18, 2019 Dubai, UAE



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Wafaa Ahmed Zahran

Menoufia University, Egypt

Blood borne viruses (BBVs)

Blood borne viruses (BBVs) are viral infections that can be transmitted from person to person through blood or body fluids. The BBV infection is a major global health problem, posing great risk to both healthcare workers and patients in their care. In health care settings, Healthcare workers (HCW) may acquire blood-borne infections from lacerations, punctures, and non-intact skin exposures to the blood or body fluids of infected patients. Exposures may occur during surgical or invasive medical/dental procedures. Transmission of BBV infection to patients may occur by injection, infusion, transplantation, unsterile equipment, or other accidental injury/penetration. So, the workshop will concentrate on the BBVs that could be transmitted in the healthcare settings; HBV, HCV and HIV: for each of these viruses, there will be clarification of their characteristics, worldwide epidemiology, modes of transmission, clinical significance, laboratory diagnoses, and updates of treatments. In this part, PowerPoint presentation together with interaction with the audience in the form of think, pair and share activity about simple basic knowledge in relevance to these BBVs. In the second part, there will be discussion about risk of transmission between patients and healthcare workers, Factors influencing the occupational risk with elaboration of different conditions/ situations for transmission; how to get Risk Reduction of transmission to Healthcare Workers and Risk Reduction of transmission to Patients; with review of Infection control measures for prevention of transmission of Blood borne Viruses in Healthcare Settings: standard precautions, safe sharps disposal, safe injections, decontamination and healthcare workers vaccination. Discussion would elaborate the Updated Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post exposure Prophylaxis. Animation and short videos will be used to elucidate the PowerPoint presentation of this part. Third part, will be in the form of interactive groups discussion about some presented case scenarios, showing different clinical presentations and select and explain best management modalities to ensure deep understanding and optimum knowledge retention.

Biography

Wafaa Ahmed Zahran is a Professor of Medical Microbiology & Immunology, Faculty of Medicine, Dean of Faculty of Pharmacy, Menoufia University Egypt. She is also the Head of infection control unit, Menoufia University Hospitals. She completed her MBBCh faculty of Medicine at Tanta University. She did her MSc and ph D in Microbiology & immunology in Menoufia University. Dr. Wafaa also completed her Infection control Professional Diploma AUC, Cairo and Medical Education Diploma, at Arab institute for continued development.

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Observation of clinical and laboratory profile of leprosy cases detected by microscopy in south west Bihar: A hospital based study

Prabhat Kumar

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Introduction: Nearly 14 years after leprosy was eliminated from India, many continue to be infected with the *lepra bacilli*. Leprosy is a chronic infectious disease that primarily affects the peripheral nerves, skin, upper respiratory tract, eyes and nasal mucosa. The disease is caused by *Mycobacterium leprae*. The leprosy elimination campaign sponsored by the World Health Organization has successfully reduced the prevalence rate of the disease to less than one case per 10,000 populations worldwide, but the number of new cases in endemic countries has increased so we undertake to this study to know the trend of leprosy in our tertiary care hospital.

Method: This was a cross-sectional study carried out over a period of six months from August 2018 to January 2019 in Narayan Medical College and Hospital Jamuhar Sasaram. Samples were obtained from patients who attended the dermatology department of NMCH Jamuahr Sasaram with history suggestive of leprosy. The slit skin smear was obtained as per standard protocol and then sample were subjected to modified (5%) Ziehl-Neelsen Staining for direct microscopy and result were observed under oil immersion.

Result: A total of 36 slit skin smear were processed of which 21(53%) patents presented with nodular lesions and 15 patents with hypo pigmented patch. Out of 21 (53%) nodular lesions 8 (38%) were showed *lepra bacilli* in microscopy with bacterial index of 6+.

Conclusion: Leprosy is one of the oldest diseases known to man. Despite advances in medical science, leprosy continues to be a public health challenge in countries like India. Our study showed 22% of leprosy cases in our hospital which showed increasing number of cases in this hospital. Continuous surveillance is by far the best strategy to reduce the incidence rate of leprosy in the future.

Biography

Prabhat Kumar has completed his MBBS and MD Microbiology from Darbhanga Medical College in Bihar, India. He has published more than 10 papers and guided more than 28 thesis.

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Potable water and uncontaminated food at every household: Dream or reality? A study among tribal population of Naxalbari Block, Darjeeling district, West Bengal, India

Nilanjana Ghosh

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Introduction & Objective: Water quality, water behavior along with food quality, food behavior, domestic environment and food handler's hygiene play pivotal role in preventing food and water borne diseases. Working women seemingly face more hazards and perceived negligence is higher in hilly tribal population. Thus the pilot study was undertaken. The objective of the study is to assess water quality at source and household level and cooked food quality, immediate domestic environment along with determining their existing knowledge/practices regarding water and food handling techniques.

Method: Descriptive community based cross-sectional study was conducted in collaboration with department of microbiology from May-July 2018 in Kiranchandra Tea Estate. Water quality was assessed among all five sources and selected 50 households using PA Coliform Kit. Water behavior was assessed in 187 households. All 120 houses with women as permanent workers were studied for food behavior, food handler hygiene and domestic environment. 50 selected houses were assessed for cooked food quality using PA H2SHi-Dip Media Kit. Results were interpreted after 48 hours incubation and confirmed by culture.

Results: Contamination was noted in both open wells and 33 houses with E coli and Klebsella. Improper water carriage, storage and treatment were found in 67.2%, 76.3% and 88.2% cases respectively. Food quality and domestic environment were inappropriate in 56.3% and 68.4% cases respectively. Illiteracy and lack of administrative support were significantly associated.

Conclusion: Water and food was unfit for consumption in vast majority. Water and food behavior was inappropriate. Identified causes need sustainable and viable solutions. A larger study is recommended.

Biography

Nilanjana Ghosh has completed her MBBS, MD in Public Health, DNB, MNAMS and DHM and PGDEPI. She is an Elected Member of National Editorial Board IJPH and State Executive Committee Member of IAPSM.

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Incidental detection of parasites: A Pathologist's viewpoint

Indranil Chakrabarti

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Parasitic infestation is a serious health problem in developing countries. Lack of proper sanitation, close proximity with cattle and pets as well as overcrowding are some of the causes that lead to the spread of parasitic diseases. Some parasitic infections do parasitise in routine blood and bone marrow is the job of a pathologist. But often, fine needle aspiration cytology smears of superficial and deep lesions, histopathological specimens of various organs, urine and stool specimens carry an element of surprise to the unsuspecting microscopist.

Biography

Indranil Chakrabarti has completed his Graduation in MD Pathology. He is an Ambassador of European Association for Cancer Research. He has more than 58 publications in national and international journals of repute. He is a regular Reviewer of several international journals including *Diagnostic Cytopathology* and *BMJ-Case Reports*. He is also a Member of International Editorial Board of various pathology related journals and a contributor to pathology outlines.

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***Lophomonas blattarum* infection in an immune-competent patient and its misdiagnosis: A case report**

Ruchika Butola

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Introduction: *Lophomonas blattarum* is a round-oval shaped protozoan, 20-60 μm diameter with apical tuft of numerous flagellate. It resides as an endocommensal in the hindgut of insects such as cockroaches. It's increasingly being recognized as one of the cause bronchopulmonary infection.

Case Report: A 22-year-old female presented with complaints of cough with blood clots in expectorant, breathlessness on exertion, wheeze and low-grade fever, for past one year. Before arriving to our Outpatient Department (OPD), patient had consulted other medical centers. There she was diagnosed with tuberculosis. In our OPD she was reviewed with previous reports, advised new investigations, continued on Anti-tubercular Therapy (ATT) and was planned for bronchoscopy. The Bronchoalveolar Lavage (BAL) was sent for laboratory testing. Wet mount of the sample revealed a motile multiflagellate protozoan resembling ciliated respiratory epithelium. After further assessment, it was reported as *Lophomonas blattarum*. The patient was kept on ATT, while awaiting Mycobacterium Tuberculosis (MTb) test results. Ongoing ATT had no positive effect patient's condition. Patient was admitted and started on Anti-protozoan treatment.

Discussion: It is difficult to differentiate *Lophomonas blattarum* symptoms from other respiratory infections displaying similar symptoms. Laboratory diagnosis relies on identification of morphological features under light microscopy. Missed identification could be due to delayed sample processing and its close resemblance to bronchial epithelium. With development of serological and molecular methods of identification, diagnosis and treatment can improve.

Biography

Ruchika Butola has completed her MD Microbiology from Swami Vivekanand University, Meerut, India. She is currently working as a Senior Resident in the Department of Clinical Microbiology of Rajiv Gandhi Super Speciality Hospital, Delhi, India.

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Changing trends in gonococcal infections-shift to MSM: Emerging resistances

Kavitha M

Kilpauk Medical College, India

Introduction: Gonococcal infections are a major part of sexually transmitted infections among MSM. The rising trend of gonococcal infections in male is alarming and screening of antibiotic resistance is important to treat them. The objective is to isolate gonococci and detect the resistance of gonococci by phenotypic methods from patients attending venereology department.

Method: All the patients with cervical discharge or urethral discharge attending venereology department were screened by gram stain and culture was done on Thayer Martin medium. Antibiotic resistance was detected by disc diffusion method as per CLSI guidelines.

Results: A total of 50 gonococcal isolate were identified from males with urethral discharge. None were isolated from females. Out of 50 isolates 60% (30) were B-lactamase producers and resistance to penicillin and 34% (17) to tetracycline. 64% (32) of isolates had developed chromosomal resistance to Ciprofloxacin and 12% (6) were resistance to Azithromycin. 4% (2) of the isolate was resistant to Cephalosporins. One isolate was resistant to four drugs.

Conclusion: The isolation of gonococci from male has been increasing along with resistance to penicillins, fluoroquinolone and tetracycline. Resistances to Cephalosporins are beginning to appear. Emergence of multidrug resistance makes treatment of gonococcal infections a challenge. Hence it is mandatory to screen for resistance and treat the infections so as to prevent spread of infections especially in male with multiple sex partners all of whose identity may not be known to treat the partner as well.

Biography

Kavitha M has completed her MD Microbiology at the age of 34 years from Stanley Medical College 14 years of teaching experience. Area of interest immunology, Infection Control, Sexually Transmitted infection, and medical education. Has worked in Regional reference Lab for STI for 2 years, State reference Lab for HIV for 5 years and State reference Lab for Dengue and Chikungunya for 3 years. I am undergoing Advanced Course In Medical Education At Regional Center Sri Ramachandra Medical University. She Has been in Bio-Medical Waste Management Training And Monitoring for more than 10 years. Published 5 Articles and Presented 4 Topics in National Conferences Has been a speaker in National Conference for STI.

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Unusual cause of owel obstruction in children in East Timor

Raimundo Dos Santos

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Introduction: Intestinal duplication cyst is a rare condition and may be the cause of small bowel obstruction in children. In pediatric age group it should be considered as an important differential diagnosis in children who presented with recurrent abdominal pain and or recurrent obstruction. Diagnosis of duplicated intestinal cyst is clinically always difficult; therefore, definitive diagnosis may only be made at laparotomy. Gastrointestinal Duplication (GIDs) is rare congenital malformation, which can arise from mouth to the anus. May vary greatly in presentation, size, location, and symptoms. It t prevalence of 1:4500 births, predominantly in white males 2/3 of all intestinal duplication discovered in within first 2 years of life with 1/3 identified in the new born period. Due to its rarity of these lesions, they frequently present at both diagnostic and therapeutic Challenges. Duplication of the gastrointestinal tract are cystic or tubular structures whose lumen are linked by a mucous membrane usually supported by smooth muscle and intimately associated with the alimentary tube. The histology reveals the characteristic lining of intestinal mucosa. They occur because of congenital aberration during gut development which may be found anywhere from the tongue to the lower rectum. Although they both arise from a redundant morphogenesis, the dorsal non-vitelline enteric malformation of the duplication cyst have a different embryological origin to those associated with the vitellointestinal duct (Meckel's diverticulum), and, about a half present within a month of birth and two-thirds in the first year. The most common site is the small intestine (50%), particularly the ileum (35%) with the cystic type being more common than the tubular type. Jejunum (10% and duodenum (5%). Although rare, intestinal duplication cyst is an important differential diagnosis for recurrent abdominal pain in the pediatric age group, and rarer in adulthood.

Biography

Raimundo Dos Santos has done his graduation from Paiol Primary School in dili, the capital of Timor Leste. He was awarded a scholarship by Ausaid to Study English for Academic Purposes at University of Wollongong in 2002. He completed his MBBS at FSM. He is currently working as a General Practitioner at the Hospital Nacional Guido Valadares (HNGV) the Hospital Of Timor Leste.

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Robert O Young

PH Miracle Center, USA



Galina Migalko

Universal Medical Imaging Group, USA

The protocol for the non-invasive diagnosis and treatment of cystic fibrosis and pulmonary adenocarcinoma lung cancer both metabolic and dietary acidic conditions of the interstitial fluids of the interstium

CF and PAC patients suffer from frequent lung infections that may lead to obstructed breathing caused by an acidic lifestyle and diet. So, the mainstays of a treatment plan are:

1. Open up the channels of elimination of dietary and metabolic acids.
2. Hyper-perfuse the blood, interstitial fluids and the intracellular fluids with alkalinity to buffer the retained dietary and/or metabolic acids in the organs, glands and tissues.
3. Heal the root system or bowels of the body or the intestinal villi of the small intestines to improve the quality and quantity of stem cell and red blood cell production
4. Alkalinizing physical therapy to remove acids out of the interstitial fluids and intracellular fluids of the tissues, especially the lungs.
5. Alkalinizing exercise to remove dietary and/or metabolic acids in the blood plasma, interstitial compartments of the Interstitium, and finally the connective tissues out through the pores of the skin.
6. Alkalinizing natural organic and colloidal natural medications for reducing the acids that cause mucus that is congesting and blocking the lung's airways.

Biography

Robert O Young is currently working as a Professor at Capital University in Washington, DC. He has completed his MS in Nutrition from the American College in Birmingham, Alabama and DSc with emphasis in Chemistry and Biology and also s PhD from Clayton College of Natural Health.

Galina Migalko brings more than 30 years of excellence in non-invasive diagnostic medical imaging. Her pioneering research in non-invasive whole-body medical diagnosis has set her apart as the World's leader in holistic medical diagnostics. This unique form of testing the complete anatomy, physiology and functionality of the body has saved her patients time, money, unnecessary medical treatments and necessary medical treatments that were unknown as she identifies and then educates her patients in the root causes of their health issues.

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Resistogram pattern of *Escherichia coli* isolated from various clinical samples in & around Kanchipuram

Sivasankari Murugan

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E. coli is one of the main cause of nosocomial infection in humans. *E. coli* being one of the common organism causing hospital acquired infections exhibits ESBL production Causing resistant to Beta lactam group of drugs resulting in limited treatment options. Hence, this study was done to know the resistance pattern in *E. coli* and their virulence factors. Materials and Methods: Samples (urine, pus, sputum) were collected & processed as per standard protocols *E. coli* were isolated. Antibiogram done as per CLSI guidelines. ESBL & MBL screening done, Biofilm formation of *E. coli* was studied in correlation to antibiotic resistance. Result: 235 *E. coli* were isolated from various clinical samples. Out of 235, 148 (62.97%) showed resistance to ceftazidime & cefatoxime, 53 (22.55%) were ESBL producers, 19 (8.8%) showed resistance to imipenem, 32 (1.27%) were MBL producer. *E. coli* were resistant to nalidixic acid, 119 (50.6%) followed by Cotrimoxazole 98(41.7%), Ciprofloxacin resistance was 135 (57.6%) and MIC ranged from 8- 64 µg/ml. Among 235 *E. coli* isolates 169 (46.38%) were MDR of which 29 (12.34%) were strong biofilm producers. Conclusion: This study highlights that all isolated ESBL producers were resistant to 3rd Gen. cephalosporins. This increase in resistance to number of commonly used antibiotics shows the emerging drug resistance. In view of this, ESBL testing and MBL screening should be made as a routine testing which will help in the shuffling of antibiotics and for proper treatment and to prevent further development of bacterial drug resistance

Biography

Sivasankari Murugan has completed MBBS from Rajah Muthiah Medical College and Post graduation MD (Microbiology) from Madras University, Tamil Nadu, India. She is Associate Professor in Microbiology at Meenakshi Medical College & RI, Kanchipuram, Tamil Nadu, India. She has published more than 30 research papers in reputed journals. Her areas of interest include Hospital Infection Control, Anti Microbial resistance surveillance. Under gone training in NABL & NABH accreditation courses & Currently working as NABH Co-ordinator.

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Detection of *mecA* gene by PCR among coagulase negative *Staphylococci* from various clinical samples in a tertiary care hospital

Senthamarai Thiyagarajan, C Anitha, S Sivasankari, K Muthulakshmi, V M Somasunder, K Akila, J Subha and Sijimol
Meenakshi Medical College Hospital and Research Institute, India

Introduction & Aim: Coagulase Negative Staphylococci (CoNS) are now emerging as important pathogen and its resistance to antibiotics are worrisome. Methicillin resistance among CoNS causes an important therapeutic threat associated with increased morbidity and mortality. This study was aimed to isolate the coagulase negative *Staphylococci* from various clinical specimens, evaluate its antibiotic susceptibility pattern and to detect the prevalence of *mecA* gene among coagulase negative *Staphylococci*.

Method: All the clinical samples were collected with aseptic precautions and processed as per standard protocol. All the coagulase negative Staphylococcal isolates were subjected for antibiotic susceptibility testing as per CLSI guidelines. Screening of methicillin resistance was done using cefoxitin disc (30 µg) as per CLSI recommended disc diffusion method. Genotypic analysis for methicillin resistance (*mecA* gene) was done.

Results: A total of 89 clinically significant non-repetitive coagulase negative *Staphylococcal* isolates were identified. *S. epidermidis* was most frequently isolated, among various species of CoNS. 15/89 (16.8%) were methicillin resistant but only 9 CoNS isolates showed *mecA* genes.

Conclusion: Coagulase negative *Staphylococci*, which were previously dismissed as contaminants are now emerging as important pathogen. There is necessity for continued surveillance to determine the extent of emerging resistance in CoNS to reduce inappropriate use of antibiotics and to allow policies to be established for adequate and rational use of antibiotics. This study insists the need of continuous monitoring the prevalence of methicillin resistance among CoNS in a given population and to frame the antibiotic policy because it can vary from region to region.

Biography

Senthamarai Thiyagarajan has completed her MD in Microbiology from Stanley Medical College. She is currently working as Professor in Meenakshi Medical College Hospital and Research Institute, India. Her areas of interest are Mycology, HIV, Antibiotic Resistance, Infection Control and Medical Education. She has received the Medical Excellence Award by Indian Solitarity Council at New Delhi and also has won many best paper awards to her credit. She has published more than 30 articles in reputed journals.

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The effect of *G lucidum* on the lifespan of *Caenorhabditis elegans* modeling Duchenne muscular dystrophy

Prashanthi Rayapati

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Duchenne muscular dystrophy (DMD) is an X chromosome-linked disease characterized by progressive physical disability, immobility and premature death in affected boys. Underlying the devastating symptoms of DMD is the loss of dystrophin, a structural protein that connects the extracellular matrix to the cell cytoskeleton and provides protection against contraction-induced damage in muscle cells, leading to chronic peripheral inflammation. However, dystrophin is expressed in neurons within specific brain regions, including the hippocampus, a structure associated with learning and memory formation. Linked to this, a subset of boys with DMD exhibit progressing cognitive dysfunction, with deficits in verbal, short-term, and working memory. Furthermore, in the genetically comparable dystrophin-deficient mouse model of DMD, some, but not all, types of learning and memory are deficient, and specific deficits in synaptogenesis and channel clustering at synapses has been noted. Little consideration has been given to the cognitive deficits associated with DMD compared with the research conducted into the peripheral effects of dystrophin deficiency. Therefore, this review focuses on what is known about the role of full-length dystrophin (Dp427) in the hippocampal neurons. In this experiment, I hypothesized that 100 ug/ml of *G. Lucidum* would extend the lifespan and too much concentration of this herbal medicine would lose its efficacy in treating this disease. A study was conducted through the reactions and lifespan of *Caenorhabditis Elegans* exhibiting the lack of dystrophin to the different concentrations of *G. Lucidum*. As a result, the effect of *G. Lucidum* on the *Caenorhabditis Elegans* modeling Duchenne Muscular Dystrophy was astonishing as 100 ug/ml of *G. Lucidum* helped prolong the lifespan of these nematodes by 20%. This data can be reflected onto the lifespan of humans with DMD as the 20% increase in lifespan of these nematodes could mean the prolonged life of 6-8 years for humans. However, too much concentration of *G. Lucidum* was shown not to affect the life of the worms. The hypothesized argument was proven correct as the results show the 20% increase of lifespan for the 100 ug/ml of *G. Lucidum* concentration and the effect of too much concentration of this herbal method. Moreover, the use of herbal medicine like *G. Lucidum* could be a new inexpensive and attainable method of treatment for those diagnosed with DMD. The importance of dystrophin in learning and memory is assessed, and the potential importance that inflammatory mediators, which are chronically elevated in dystrophinopathies, may have on hippocampal function is also evaluated.

Biography

Prashanthi Rayapati is currently pursuing her High School at LYNBROOK HIGH SCHOOL, San Jose, CA. Her Research of interests are Evolutionary Cell Biology research in gene modifications using DNA methods, Cognitive Artificial Intelligence modeling of Duchenne Muscular Dystrophy using the *C.elegans* effect on *G.Lucidum* on the Life Span of Patients. She got awards like Shri Krupa Volunteer of the Year, Synopsis Science Fair Honorable Mention, Leukemia and Lymphoma Society Award, JEENA recognition Award.

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Screening of *in vitro* activity of antimicrobial and antibiofilm property of Mesenchymal stems cells against MDR gram negative organism isolated from urinary tract infections in tertiary care hospital

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Introduction & Objective: Recent studies had showed that Mesenchymal Stem Cells (MSCs) have beneficial effects on bacterial infections. Treatment with MSCs has proven bacterial clearance. This study was undertaken to study the in vitro activity of antimicrobial and antibiofilm activity of stems cells against gram negative multidrug resistant organism from urinary tract infections.

Method: The samples will be processed according to standard protocol following standard guidelines. All the isolates obtained will be identified by standard guidelines. Total of 50 isolates were collected. The antibiotic susceptibility testing will be done for all the isolates by Kirby Bauer disc diffusion method following CLSI guidelines. All the isolates are screened for production of biofilm by tissue culture plate method. The antimicrobial activity of mesenchymal stem cells was done by micro broth dilution method.

Results: Among the 50 gram negative isolates 22 (44%) were *Pseudomonas* species 12 (24%) were *E coli* 8 (16%) were *Klebsiella spp* and 8 (16%) were *Proteus species*. Among the 50 isolates 32 (64%) were multi drug resistant to the antibiotics tested. Among the 50 isolates 43 (86%) produced biofilm of which 28 (65%) were strong producer 8 (18%) were moderate biofilm producer and 7(16.27%) were weak biofilm producers. All 43 isolates showed sensitivity for the mesenchymal stem cells with MIC range of 32-0.25µg.

Conclusion: So far only very few or no studies have been reported on anti-biofilm activity of mesenchymal stems cells. From our study stem cell, therapy with MSC will be effective and alternate for antibiotic resistance in chronic urinary infection there by can serve as therapeutic options for treating drug resistant organisms.

Biography

C Anitha has completed her PhD from Dr ALM PGIBMS, University of Madras, India. She is currently working as Assistant Professor of Microbiology in Meenakshi Medical College Hospital and Research Institute. Her areas of interest are Biofilm studies using Confocal Laser Scanning Microscope, Antimicrobial resistance and rare Infectious diseases. She has published more than 30 papers in reputed journals and also has 15 Data sequences submitted in PUBMED/NCBI Genebank. She is also serving as an Editor, Associate Editor, Editorial Board Member and Review Board Member of reputed journals.

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