

Dr. MOBY SAIRA LUKE

TCMC Registration: 63740

APPLICATION FOR THE POST OF SENIOR RESIDENT MICROBIOLOGY

PROFESSIONAL QUALIFICATION:

PRESENT: Pursuing Final year Post Graduation **MD MICROBIOLOGY**
in the DEPARTMENT OF MICROBIOLOGY at **Sree Gokulam Medical
College and Research Foundation**, Trivandrum from 28/7/2020
-Will commence by August 2023.



CAREER OBJECTIVE

To work as a Registered Medical Practitioner in a leading healthcare organization and to utilize my skills and understanding of preventive measures, ailment diagnosis, medications and latest processes.

WORK EXPERIENCE

5 YEARS

LANGUAGES KNOWN

Malayalam (Native)
Hindi (Fluent)
English (Fluent)

PERSONAL DETAILS

DOB: 14-10-1993

RESIDENTIAL ADDRESS

CGRA 26
Chandana Gardens
Jayaprakash Lane
Kudappanakunnu PO
Trivandrum-695043
Kerala State

CONTACT :

+917736729663/ +918289947663

EMAIL

mobylyuke1@gmail.com
mobylyuke12@gmail.com

MBBS- Completed

Sree Uthradom Thirunal Academy of Medical Sciences, Trivandrum
Kerala, India (Affiliated to Kerala University of Health Sciences)
Graduated and completed Internship on August 2017

TRAINING & CERTIFICATIONS:

- 1. Certification in eProtect Respiratory Infections**
Under Health Emergencies Program ,World Health Organisation
- 2. Certification in Standard Precautions: Hand Hygiene**
Under Health Emergencies Program, World Health Organisation
- 3. Completed Training Program on Clinical Care Severe Acute
Respiratory Infection**
World Health Organisation
- 4. Completed Course on Role of Lab in AMR**
Global Health CPD
- 5. Completed course on TB LAM Guidelines and Implementation
Guidelines**
Global Health CPD
- 6. Completed Certificate Course in Clinical and Diagnostic
Virology**
Manipal Institute of Virology (1/9/2022-30/9/2022)
- 7. Attended 2 day-workshop on Monoclonal antibodies at Institute
of Advanced Virology, Thonakkal**
Have insights regarding Immunological procedures like Hybridoma
technology, antibody purification using affinity chromatography,
Indirect ELISA, Transfection protocols

WORK EXPERIENCE:

1. Worked as Junior Resident

Assisi Atonement Hospital , Perumpuzha ,Kollam, Kerala
3 Feb 2020 to 30 March 2020

2. Worked as Casualty Medical Officer

Holy cross Super specialty Hospital ,Kottiyam, Kollam
January 2020 to February 2020

3. Worked as Junior Resident ,Department of Paediatrics

[Experience certificate enclosed]-

Holy cross Super specialty Hospital ,Kottiyam, Kollam
29 April 2019 to 15 Dec 2019

4. Worked as Resident Medical Officer

[Experience certificate enclosed]-

At Kolath Medical Centre, Peeroorkada ,Trivandrum
January 2018 –April 2019

5. Worked as Junior Resident Department of Paediatrics

SUT Academy of Medical Sciences, Vattappara, Trivandrum, Kerala
From 24 August 2017 to 8 January 2018.

PRESENT JOB SKILLS:

- Examination of Microbiological culture plates that came to our lab and interpretation and reporting of the same based on standard treatment guidelines and following strict Antimicrobial Stewardship Protocols.
- Identifying infections of different natures (fungal, parasitic, viral, and bacterial), identifying organisms causing infections, interpreting data, writing research papers, formulating strategies to prevent the spread of infections, and managing laboratories
- Performed various serological tests including ELISA, ELFA, Latex agglutination tests, VDRL tests, etc.
- Performed Quality controls testing of Bacteriology, Serology, PCR
- Well versed with sample collection , transport protocols, rejection protocols, Biomedical waste management
- Well versed with Basic Virological and Immunological techniques.
- Actively participated in EQAS, EQMM, ILC programmes.
- Made hospital Antibigrams, SOPs, Posters, etc., and helped faculties to present them in monthly meetings.
- Conducted research on Antibiotic research by VITEK2 automated compact systems
- Provided Lectures to MBBS, BSc Nursing, DMLT students.
- Speaker for programmes conducted by our Hospital Infection Control Committee

- Studying in a NABL Accredited Molecular lab so well versed with RT-PCR (QuantStudio-5) methods including reporting and accreditation protocols
- Amazing ability to handle multiple projects and appropriately prioritize tasks to meet deadlines.
- Ability to support heavy workload volume and meet critical regulatory guidelines
- Well versed with MS Office, MS powerpoint, MS excel, WHONET, LIMS, GLPs.
- Active member of AMSP, HICC and its associated programmes.

PG PROGRAMMES:

- **Number of Posters presented:** 3
- **Number of Papers presented:** 1
- **Number of articles in Indexed Journal:** 1(Indexeing: Index Copernicus; ORCID ID: <https://orcid.org/0000-0002-2976-2469>)
- **Number of articles in Press:** 1 (IJSR-Pubmed Indexed) (Article accepted for publishing in April 2023 issue)
- **Number of CMEs and Conferences attended:** more than 65 and obtained over 60 CME credit points
- **Thesis work:** A hospital based study on Colistin resistance in Multi Drug resistant Gram Negative Bacteria among clinical isolates from a Tertiary Care Centre in South Kerala

SUMMARY OF PAST JOB RESPONSIBILITIES:

- Was responsible for providing services to all patients in compliance with Hospital policy and contractual obligations
- Provided outpatient consultations in concerned department as required.
- Attended referrals and consultations from all disciplines
- Ensured continuity of care for patients while on-call.
- Diagnosed and treated all cases according to the clinical privileges granted to me.
- Was Responsible to provide high standard of clinical care and expertise in assessment, investigation, diagnosis and treatment of patients.
- Provided routine preventive health examinations, and diagnosed and treated a wide range of illnesses. Given childhood immunizations and treated minor injuries and advised teenagers about reproductive health.
- Attended emergency situations at any time of the day or night.
- Oversees diagnostic and treatment process and prepared patient charts and other paperwork.

- Consulted and advised parents and guardians on health care topics, including explaining treatments and procedures.
- Performed assessments and diagnoses of patients and provided appropriate treatments.
- Was responsible for initial assessment, requesting investigation, analyzing the results, diagnosis, treatment, and re-assessment on followup.
- Prescribed and administered, medication, and other specialized medical care to treat and prevent illness and disease.
- Explained procedures and discussed diagnostic results or prescribed treatments with the patients and his/ her attendants was responsible for monitoring the patients' condition and progress and reevaluated/ re-assessed and treated the patient accordingly & also referred patients to other specialists.

MEMBERSHIP

1. Infection Control Academy of India- Member ID=12/29/2022
2. Society for Antimicrobial Stewardship Programme India- Member ID=SASPI/MT/1
3. American Society for Microbiology- Member ID=200342902

ACHIEVEMENTS

- Winner of 0.1 % centile by the Central Board of Secondary Education Certificate of Merit

LEADERSHIP ROLES:

1. Trustee & Secretary of Kripa Social Welfare Trust ,Trivandrum- Non Governmental Charitable Organisation
2. Anchored a number of programs including, Regional International and National conferences and Anchored TV Shows in Doordarshan , Surya TV & other Leading channels.
3. Acted in the Malayalam Movie 'Kathaparayum Theruvorum'.



KOLATH MEDICAL CENTRE

Pearl Nagar, Peroorkada, Thiruvananthapuram - 695 005,
E-mail: drkolath2000@yahoo.com, Phone: 2433327, Res: 2435604

Dr. P. GEORGE VARGHESE
B.Sc., M.B.B.S.,
D.Ped. D.C.H. (London)
Medical Director & Paediatrician

Dr. P. MURUKESAN MD
(Rtd. Prot. of Medicine)
Consultant Physician

Dr. ANNAMMA JAMES
M.B.B.S., D.G.O.
Gynaecologist and Obstetrician

Dr. JAMES GEORGE
M.B.B.S., DA
Anaesthesiologist

Dr. HARI KRISHNAN
M.S., D.O. (Dublin)
Consultant Ophthalmologist

Dr. THOMAS GEORGE
MD. DVD; DDV; TDD
Consultant Dermatoloaist

Dr. JOHN PONNAT
MS. D.L.O.; DNB (ENT)
Consultant ENI Surgeon

Dr. V.N. BALASUBRAMANIAM
M.B.B.S.
(Retd. Civil Surgeon)
Medical Superintendent

Dr. K. VIKRAMAN M.B.B.S
(Retd Civil Surgeon)

Mrs. A. VARGHESE B.Sc.
Managing Director

CERTIFICATE OF EXPERIENCE

This is to state that **Dr. Moby Saira Luke** of CGRA-26, Elsa Cottage, Chandana Gardens, Jayaprakash Lane, Kudappanakunnu P.O. Thiruvananthapuram-43 has worked as the **Resident Medical Officer** of this hospital from **15.01.2018** to **14.04.2019**.

She is efficient, hardworking and punctual. Her relation with the members and patients are Excellent.

I wish her all success.

Dr. P. George Varghese



Dr. P. GEORGE VARGHESE
B.Sc., M.B.B.S., D.Ped., D.C.H. (London)
Medical Director & Paediatrician
KOLATH MEDICAL CENTRE
Thiruvananthapuram-695 005.
Reg. No. 5120



HOLY CROSS HOSPITAL
KOTTIYAM , KOLLAM, KERALA- 691 571.

Phone : 0474 - 2530121-124, 2538000
Fax : 0474 - 2530531
E-mail : admin@holycrosskottiyam.org
Website: www.holycrosskottiyam.org

EXPERIENCE CERTIFICATE

This is to certify that **Dr. MOBY SAIRA LUKE MBBS** had been working in this Hospital as a Junior Resident in the Department of **PAEDIATRICS** from 29.04.2019 to 15.12.2019.

Holy Cross Hospital is 500-bedded Super Specialty Hospital equipped with all the modern diagnostic and treatment facilities. It is accredited to the National Board of Examinations for training D.N.B. Candidates.

Dr. MOBY SAIRA LUKE was found to be hardworking, responsible and reliable in her duties. She is dedicated to her profession and has a cordial approach towards the patients her colleagues and other staff members.

Her character and conduct have been good. I wish all success in her career pursuits.

11.01.2020



S. Vinny
Sr. Vinny Vettukallel BSc (N), MHA
ADMINISTRATOR

Administrator
Holy Cross Hospital
Kottiyam - 691 571
Kollam, Kerala, India

THE TRAVANCORE-COCHIN COUNCIL OF MODERN MEDICINE CERTIFICATE OF REGISTRATION

REGISTRATION NUMBER

63740



Name : Dr. MOBY SAIRA LUKE
Name of Father/Guardian : LUKE K.G.
Date of Birth : 14-10-1993
Permanent Address : ELSA COTTAGE, CGRA NO. 26, CHANDANA GARDENS, JAYAPRAKASH LANE, KUDAPPANAKUNNU P.O., THIRUVANANTHAPURAM, Pin-695043, KERALA.
Qualification : M.B.B.S.
(BACHELOR OF MEDICINE AND BACHELOR OF SURGERY)
Year of award of Degree : 2017
Name of the Medical College : S.U.T. ACADEMY OF MEDICAL SCIENCES
Name of the University : KERALA UNIVERSITY OF HEALTH SCIENCES

I hereby certify that Dr. MOBY SAIRA LUKE is registered as a practitioner in Modern Medicine under the Travancore-Cochin Medical Practitioners' Act, 1953 on the 20th day of October 2017 at Thiruvananthapuram.

Thiruvananthapuram,
Date: 20-10-2017.

SL.No:49602
Information



REGISTRAR
BHADRAN. S.
REGISTRAR
Travancore Cochin Medical Councils
Red Cross Road
Thiruvananthapuram-695 035

1. Change of address must be communicated to the Registrar.
2. Additional Qualifications, if any, should be separately registered.
3. This Certificate is not transferable and the holder shall abide by the Code of Ethics applicable.
4. This Certificate should be surrendered to the Council in case of cessation of practice or demise.

Rare case of neonatal sepsis due to Salmonella Typhimurium: A case report

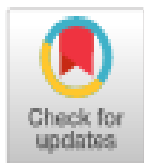
Case Report

Author Details : Kiran Subhash, Ashish Jitendranath*, Ramani Bai J T, Moby Sara Luke

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Abstract

Neonatal sepsis due to *Salmonella* species, though rare, can result in increased morbidity and mortality. Amongst the different species of *Salmonella*, most commonly presents as a case of gastroenteritis. We present a case of a newborn with sepsis, who was treated successfully and had recovered.

Keywords: *Salmonella*, Typhimurium, Ceftriaxone, Stool

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Tropical Diseases

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Case Report

Rare case of neonatal sepsis due to *Salmonella Typhimurium*: A case report

Kiran Subhash¹, Ashish Jitendranath^{1,*}, Ramani Bai J T¹, Moby Sara Luke¹



¹Dept. of Microbiology, Sree Gokulam Medical College and Research Foundation, Thiruvananthapuram, Kerala, India

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ABSTRACT

Neonatal sepsis due to *Salmonella* species, though rare, can result in increased morbidity and mortality. Amongst the different species of *Salmonella*, *Salmonella typhimurium* most commonly presents as a case of gastroenteritis. We present a case of a newborn with *Salmonella typhimurium* sepsis, who was treated successfully and had recovered.

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1. INTRODUCTION

The spectrum of diseases caused by *Salmonella* spp is vast, ranging from gastroenterocolitis to sepsis and even meningitis. Sepsis due to *Salmonella* spp is comparatively rare in paediatric populations, especially neonates. In an extensive study detailing the etiology of neonatal sepsis, there were no cases of *Salmonella* spp isolated out of 840 positive samples.¹ Though infrequently reported, it can present with serious complications. An avirulent strain of *Salmonella* spp, can cause significant morbidity in a neonate.²

Similar to Typhoidal *Salmonella*, Non Typhoidal *Salmonella* also cause significant human diseases. Most of the times, the clinical presentation is as self-limiting gastroenteritis. Invasive NTS is more commonly seen in neonates, elderly and immunocompromised patients.³ We report the case of a new born baby who had sepsis due to *Salmonella Typhimurium*.

* Corresponding author. E-mail address: ashishjit11@gmail.com (A. Jitendranath).

2. CASE REPORT

A 28 year old G3P1L1A1 female with 35 weeks of amenorrhea, spontaneously delivered a female baby by normal vaginal delivery in our tertiary care centre. The mother had been admitted one day prior, with complaints of intermittent lower abdominal pain and increased frequency of passing loose stools. Rapid Antigen Test (RAT) came out positive for the mother.

The neonate was preterm with a low birth weight of 2.28 kg. The Apgar score was 9 and 10 at 1 and 5 minutes respectively. She was admitted to the neonatal intensive care unit after having developed respiratory distress within 4 hours of post natal life, which progressed into severe tachypnea. General examination revealed the baby to be febrile, (temperature - 38 C). Respiratory rate was 78/min and heart rate was 170/min. Capillary refill time was within normal limits. There was no focus of infection. The baby was administered supportive care and oxygen by hood method. Provisional diagnosis of neonatal sepsis was made. Sepsis screening was done and parenteral amikacin was started by intravenous route after blood sample was drawn for automated blood culture and sensitivity. Total leukocyte count was elevated, CRP and electrolytes were within normal limits. Breastfeeding of baby was commenced.

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Within 36 hours of post natal life, the condition of the baby had worsened; the skin had developed yellowish mottling, there was delayed capillary filling time along with decreased new born reflexes and poor sucking ability. Repeat blood culture sample was sent, and parenteral piperacillin tazobactam was added. Due to reduced skin turgor and tonus, she was started on intravenous fluids. Metabolic acidosis was diagnosed on performing a venous blood gas, which required a bolus of normal saline. Repeat blood counts revealed leukopenia. Sample was sent for SARS- CoV-2 RT PCR, which came out negative. Due to there being no improvement in the condition of the baby, umbilical vein catheterization was carried out and the antibiotics were changed to injection meropenem and vancomycin.

The blood cultures were processed at the Department of Microbiology by standard methods. There was no growth detected from the initial set of blood culture bottles sent. On the third day of incubation, the second blood culture bottles flagged positive and growth was identified to be *Salmonella Typhimurium* VITEK 2 as well as biochemical reactions. Antibiotic susceptibility tests were performed by both automated (broth microdilution, VITEK 2) as well as disk diffusion techniques. The isolate was sensitive to cotrimoxazole and meropenem and resistant to ceftriaxone, ciprofloxacin and piperacillin - tazobactam. Therapy was altered to remove vancomycin.

Cerebrospinal fluid was procured by performing a lumbar puncture, which yielded no growth and was suggestive of normal study.

The baby was placed in isolation according to hospital policy due to the possibility of a nosocomial infection.

By the 5th day of post natal life, the condition of the baby had improved and she had started tolerating regular feeds. Umbilical catheter was removed and blood was sent for repeat culture and sensitivity, yielding no growth. The baby was discharged after having completed 14 days of intravenous antibiotics.

The mother had given history of consuming food from a nearby restaurant 2 days prior to delivery, following which she had developed her presenting complaints. All her symptoms had subsequently subsided and was later asymptomatic. Concurrently, stool and blood samples of the mother were sent for culture and sensitivities, of which stool sample grew *Salmonella Typhimurium* with the same sensitivity pattern. Breast milk sample of the mother was sterile. The mother was referred to Internal Medicine and was advised to start oral cotrimoxazole.

After preliminary identification of the organism and antibiotic sensitivity, the strain was sent to Christian Medical College, Vellore for confirmation of sensitivity.

3. DISCUSSION

Neonatal sepsis is one of the leading causes of neonatal mortality in India. Gram Negative bacteria are the predominant etiological agents, with *Klebsiella pneumoniae* being the most common.⁴ Sepsis in neonates due to both typhoidal and non typhoidal salmonella have been reported. Non typhoidal Salmonellosis in man has a varied presentation, ranging from mild to severe, including gastroenteritis, sepsis, osteomyelitis.⁵ Usually, they are localised in the alimentary canal and do not require treatment with antibiotics, however neonates are especially vulnerable to infections by this organism which can cause significant morbidity. Cases of neonatal meningitis and brain abscess have been reported with NTS as the causative agent.⁶ Neonatal septicaemia due to *Salmonella Typhimurium* have occurred as outbreaks in new born nurseries, with certain cases ending in fatality.^{7,8} Pooled breast milk has also been linked in outbreaks of sepsis due to *Salmonella Typhimurium*.⁹

The modes of transmission have been postulated to be horizontal or vertical, including faecal contamination of the birth canal. In the present case, the mother was symptomatic at the time of delivery with a history of consumption of food from external sources. Since it was an early onset sepsis in the neonate, the transmission could have been transplacentally or through the birth canal at the time of delivery.

Antibiotic resistant non typhoidal Salmonella has been gradually emerging and this case evidently reflects it. The isolate was found to be resistant to ampicillin, ceftriaxone, ciprofloxacin and piperacillin - tazobactam. The baby had recovered on treatment with meropenem, which was found to be sensitive. The increasing resistance pattern being encountered will eventually jeopardise the options for the successful treatment of Non Typhoidal Salmonella infections.

4. CONCLUSION

Clinical features of sepsis due to *Salmonella* spp do not differ much from sepsis due to other Gram negative bacteria. Identification of Non Typhoidal *Salmonella* septicaemia requires a high degree of suspicion. Promptly sending blood culture samples in symptomatic neonates before starting antibiotics is an absolute necessity in order to correctly diagnose and treat the case

5. CONFLICT OF INTEREST: NONE.

6. SOURCE OF FUNDING: NONE.

REFERENCES

1. Delhi Neonatal Infection Study (DeNIS) collaboration. Characterization and antimicrobial resistance of sepsis pathogens in neonates born in tertiary care centres in Delhi, India: a cohort study. *Lancet Glob Health*. 2016;4(10):752–60. doi:10.1016/S2214-109X(16)30148-6.
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8. Buch NA, Dhananjaya A. A nursery outbreak of multidrug resistant Salmonella typhimurium. *Indian Pediatr*. 1998;35(5):455–9.
9. Cooke FJ, Ginwalla S, Hampton MD, Wain J, Ross-Russell R, Lever A, et al. Report of neonatal meningitis due to Salmonella enterica serotype agona and review of breast milk-associated neonatal Salmonella infections. *J Clin Microbiol*. 2009;47(9):3045–9. doi:10.1128/JCM.01064-09.

AUTHOR BIOGRAPHY

Kiran Subhash, Assistant Professor

Ashish Jitendranath, Associate Professor

<https://orcid.org/0000-0003-2132-332X>



Ramani Bai J T, Professor and HOD

Moby Sara Luke, Post Graduate

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LETTER OF ACCEPTANCE BY IJSR

Dear Dr.Moby Saira Luke, Dr.Kiran Subhash, Dr.Ramani Bai J.T., Dr.Ashish Jitendranath

Greetings! Congratulations, your paper has been accepted for publication to the **INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH (Print ISSN: 2277-8179) for 1st April,2023 issue**. The Journal is indexed with all the leading International Directories like **Pubmed Central, Indian Citation Index, Index Medicus, Google Scholar, Ulrich, Cross Ref etc and having an Impact Factor: 5.862, UGC Sr.No.49217 & An MCI/NMC Approved Journal.**