



Genotypic characterization of antimicrobial resistance in Non-Typhoidal Salmonella poultry isolates using multilocus sequence typing



Harith R¹, M Vidhya¹, A Elamurugan¹, BSM Ronald¹, KS Kumar¹, JJ Jacob², JJ Kirubaharan¹, KG Tirumurugaan¹, V Balaji²

1-Department of Veterinary Microbiology, Madras Veterinary College, TANUVAS, Chennai, Tamilnadu-600 007

2-Department of Clinical Microbiology, Christian Medical College and Hospital, Vellore, Tamilnadu-632 004

Hypothesis

- To study the prevalence of Salmonella species among healthy native chicken in northern Tamilnadu and their significance in antimicrobial resistance (AMR)

Introduction

- Salmonella - one of the important pathogens affecting poultry, a major source of human food-borne infections
- Increasing evidence on AMR among salmonella can be a potential threat to public health
- Innocuous presence of non-typhoidal salmonella (NTS) in poultry, with antimicrobial resistance - potential source for transfer of drug resistance to other members of the gut microbiome

Methods

- Cloacal & environmental samples (n=622) – healthy native chicken
- Isolation and characterization of Salmonella species
- Phenotypic and genotyping characterization of antimicrobial resistance
- Multilocus sequence typing – housekeeping genes (*AroC*, *DnaN*, *HisD*, *HemD*, *PurE*, *SucA*, *ThrA*)

