allowed for the rapid, accurate location of selected structures. Some limitations remain. Correctly locating structures can be challenging for clustered, interlaced structures since interfering factors (obstructive/reflective structures, multi-story buildings, environmental diversity) may impact on the precision of GPS readings. Geospatial frames require constant updating, but could provide an approach for population-based investigations at probability samples of households in settings that are uncensused and lack longitudinal recording of socio-demographic and vital statistics.

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Genetic variability of the G-L intergenic region sequences of Indian rabies virus strains circulating in animals


1 Veterinary College, Bangalore, India
2 Veterinary college, Bangalore, Karnataka, India
3 Veterinary college, Bangalore, India
4 Veterinary college, Hassan, India
5 Ella Foundation, Hyderabad, Telangana, India

Background: The evolutionary studies of rabies virus (RABV) have targeted the N or G gene, or recently the G-L intergenic region sequences. Among these, G-L intergenic region is considered as the most variable since it is not subjected to immunological selective pressure. The present study was undertaken to understand the genetic variability of RABV in animals in India based on the G-L intergenic region

Methods & Materials: Twenty seven brain samples from suspected rabid animals (22 dogs and five cattle) resourced from Karnataka (n=9), Kerala (n=5), Rajasthan (n=3), Tamil Nadu (n=2), Manipur (n=4) and Uttar Pradesh, Gujarat, Puducherry and Jammu Kashmir (n=1 each) were confirmed by Direct Fluorescent Antibody (DFA) assay (Fig.1). The samples were further subjected to Reverse Transcription Polymerase Chain Reaction (RT-PCR) along with Dr. Larghi’s strain (PV-3462) as reference to amplify the G-L intergenic region. The PCR products (1354 bp) were purified, sequenced and compared to the corresponding sequences of RABV from different countries, CVS and PV strains obtained from GenBank. Phylogenetic tree was constructed using the nucleotide sequences corresponding to 423 bp of the 1354 bp amplicon. The branching pattern of the trees was constructed by the Neighbor Joining method using Mega 5 software version 5.02.

Results: The phylogenetic analysis revealed two major groups of RABV in India (Fig.2 & 3): Group 1 circulating all over India and Group 2 restricted to two Southern states, Tamil Nadu and Kerala. Group 2 RABV showed high homology with the Sri Lankan isolates. Group 1 was further sub-grouped into four, designated as 1a, 1b, 1c and 1d. Group 1a included the majority of isolates from Karnataka and Puducherry, and one from Kerala. Group 1b included RABVs from Rajasthan, Gujarat, Uttar Pradesh and Karnataka, whereas Group 1c included an isolate from Jammu & Kashmir along with isolates from Pakistan. Group 1d included isolates from Manipur and Bangladesh.

Conclusion: Rabies viruses circulating in animals in India belong to Genotype 1, and are genetically diverse. In the present study, the sub grouping of RABVs could be due to major geo-physical barriers such as Himalayan range, Western ghats and major rivers including Ganga and Brahmaputra.

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Prevalence of rickettsial infections in acute coronary syndromes in Sri Lanka: A case control study

C.D. Mettananda1, R. Premaratna 2,∗, D. Danansuriya 3, N.B. Bandara 3

1 University of Kelaniya, Sri Lanka, Ragama, Sri Lanka
2 Faculty of Medicine University of Kelaniya, Ragama, Sri Lanka
3 University of Kelaniya, Ragama, Sri Lanka

Background: Interest in the relationship between infection and atherosclerosis induced coronary heart disease has recently increased. Rickettsiae are a group of obligate intracellular pathogens who invade endothelial cells and cause vasculopathy. In a longitudinal nation wide study conducted in Taiwan, the incidence of acute coronary syndromes (ACS) in patients with scrub typhus was found to be higher than a comparison cohort (3.10 vs 1.92 per 1000 person-years). A 37% increased risk in subse-
Aims: To assess the role of sickle cell gene on severity of P. falciparum malaria. The number of complications has increased with decreased α-globin gene number in both patients with HbAS and HbSS. In HbAS, patients with α-thalassemia had greater HbA/HbS ratio compared to patients with normal α-geneotype (p<0.01).

Conclusion: Patients with α-thalassemia had greater haematological and clinical parameters compared to normal α-geneotype in HbAA. The high incidence of α-thalassemia in patients with HbAS, suggest the negative epistatic interaction of α-thalassemia on the protective effect of HbAS against severe malaria. This hypothesis again supported by high Hba/Hbs ratio in our patients with HbAS and α-thalassemia. Longitudinal cohort study is essential to understand the pathophysiology of malaria and haemoglobin disorders in India.

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Role of medical colleges in TB control under RNTCP - Five years experience in Puducherry, S. India (2010 -2014)

A. Purty*, Z. Singh, M. Natesan, R. Chauhan, D. Ramachandran

Pondicherry Institute of Medical Sciences,
Pondicherry, India

Background: A substantial proportion of patients with TB are managed at medical colleges across India. The RNTCP of Govt. of India conceived and implemented the unique experiment over a decade ago of involving the academicians who constitute the faculty in the public health programme for TB control by a mechanism of National, Zonal and State level Task Forces. A periodic review of role of Medical college in TB control is important to monitor the progress.

Methods & Materials: Puducherry at U.T. in Southern India with a population of 1.2 million has nine medical colleges, two are government and seven are private institutions involved in implementing the RNTCP and report their progress in a structured format every quarter to the State Task Force (Puducherry) which is reviewed and feedback provided to all concerned. A consolidated report submitted to the Zonal and National Task Forces of RNTCP.

A record based study of the RNTCP STF Quarterly reports from 2010 to 2014 was conducted to find the proportion of TB patients screened, the proportion of sputum smear positive, negative and extra pulmonary TB patients diagnosed, the proportion of patients referred for treatment and proportion of pre-treatment loss to follow up among them.