

individuals who received the PVCV by ID or IM route. **Conclusion:** These results suggest that IgG1 serum of individuals vaccinated intramuscularly with PVCV are more glycosylated than IgG1 serum of subjects who received the vaccine intradermally. This differential glycosylation patterns between antibodies is encouraging and warrants further examination.

#### PT.024

### ANÁLISE EPIDEMIOLÓGICA DAS AGRESSÕES POR ANIMAIS SILVESTRES NA 10ª REGIÃO DE SAÚDE/LIMOEIRO DO NORTE – CE/ 2007 A 2011.

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**Introdução:** no Brasil, a partir de 2004, aumentou o número de casos humanos de raiva transmitidos por animais silvestres (MS, 2011). O Ceará, em 2008 e 2010 teve dois óbitos transmitidos por sagui. Apesar de não registrar casos humanos, aumentaram as agressões por animais silvestres na 10ª Coordenadoria Regional de Saúde, de 29 casos em 2007 para 35 em 2011. Nesse período 12,5% das amostras foram positivas, um canídeo silvestre e um morcego hematófago (*Desmodus rotundus*). **Objetivo:** analisar a epidemiologia das agressões por primata não humano, quiróptero e canídeo silvestre na 10ª Região de Saúde – Limoeiro do Norte – CE, de 2007 a 2011, enfocando o risco epidemiológico para a raiva a que sua população está submetida. **Metodologia:** o estudo trata-se de uma pesquisa documental e bibliográfica dos relatórios do Sistema Nacional de Agravos de Notificação (SINANNET, 2012), da Ficha Epidemiológica de Profilaxia da Raiva Humana (10ª CRES) e artigos recentes. **Resultados:** na Região de Saúde predominaram as agressões por primatas não humanos (71,1%), seguidos por quirópteros (18,4%), e canídeos silvestres (10,4%). O sexo masculino foi o mais agredido por quiróptero (62,1%) e canídeo silvestre (75%). O feminino se expôs em 55,3% nas agressões por primatas não humanos, com um aumento de 17 agressões em 2007, para 25 em 2011. Mãos e pés tiveram 42,98% das lesões, membros inferiores 24,1%, membros superiores 21,49%, tronco 5,26%, cabeça/pescoço 4,38%, mucosa 1,75%. Registraram-se 67% dos ferimentos como único, e 33% múltiplo. Em 47,7% dos acidentes o ferimento foi profundo, 47,2% superficial, e 4,9% dilacerante. O soro antirrábico foi administrado em 60,2% dos pacientes, revelando que ocorreu um maior número de acidentes graves. **Conclusão:** embora não haja histórico de raiva humana, o registro de animais silvestres positivos indica a circulação do vírus na região, que aliado ao alto percentual de lesões graves, potencializa o risco de transmissão caso a vigilância do agravo seja negligenciada.

#### PT.025

### HUMORAL IMMUNE RESPONSE IN DOGS AND CATS VACCINATED AGAINST RABIES IN THE MUNICIPALITIES OF DRACENA AND PRESIDENTE PRUDENTE, SP, BRAZIL.

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**Introduction:** In Brazil, has been made campaigns to vaccinate dogs and cats once a year in almost all municipalities and these animals are among the main transmitters of rabies to humans. The presence of rabies antibodies in animals is likely a good indicator that they are immunized and protected

this zoonosis. **Objective:** This experiment aimed to investigate the humoral immune response in dogs and cats vaccinated against rabies in the Municipalities of Presidente Prudente and Dracena 12 months before the mass vaccination campaign conducted in 2009. **Methods:** In this paper are reported the results of 834 sera from dogs and cats involving these animals. It was used for this purpose, the technique of Rapid Fluorescent Focus Inhibition Test (RF-FIT) and was considered as reactant sera with values  $\geq 0.5$  IU/ml. **Results:** Thus, Presidente Prudente had 153 (51.0%) samples reactants for dogs and 59 (32.6%) reactants for cats, while the Municipality of Dracena had 110 (52.1%) samples reactants for dogs and 71 (50.0%) for cats. **Conclusion:** In this paper, is discussed the vaccinal coverage of the animals involved in this experiment. It was observed low percentages of titres  $\geq 0.5$  IU/ml, especially in cats of Presidente Prudente. Financial Support: FAPESP, process 08/54266-3.

#### PT.026

### DEVELOPMENT OF REAL TIME RT-PCR (TAQMAN) FOR DETECTION AND GENETIC CHARACTERIZATION OF ANTE-MORTEM HUMAN RABIES

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Human rabies is still an important public health problem in some Brazilian regions. Usually, ante-mortem diagnosis of rabies is made by demonstration of virus antigen by direct immunofluorescence in corneal or conjunctival smears and skin biopsies; however, this technique has a low sensitivity. Recently, molecular techniques such as the reverse transcriptase polymerase chain reaction (RT-PCR) and nucleic acid sequence based amplification assay (NASBA) have been developed to improve the sensitivity and specificity of ante as well as post-mortem diagnosis of rabies. Rapid and accurate diagnosis of ante-mortem human rabies is essential for effective medical management and to ensure appropriate post-exposure prophylaxis of potential contacts with the patient. The present study was carried out to evaluate the sensitivity and specificity of real time RT-PCR (Taqman) in comparison with RT-PCR and DNA sequencing for the diagnosis of rabies. From June through July 2012, nine specimens from three patients with rabies were submitted to the Pasteur Institute for rabies diagnosis. Five saliva (2551 and 2613 to 2616) and two hair follicles (2552 and 2612) specimens were collected serially from patient suspected of having rabies from Mato Grosso (MT) state. Saliva (3550 and 4109) specimens were collected from patients *rabies suspected* from Minas Gerais (MG) and Maranhao (MA) states, respectively. The positive rabies results were confirmed by RT-PCR using primers targeted to nucleoprotein (N) gene and all of specimens were identified as compatible with hematophagous bat lineage (variant 3) by DNA sequencing, with the exception of the saliva collected from MA patient, which was genotyped as canid lineage (variant 2). A real time RT-PCR (Taqman), with two primers and probe sets targeting to N, has been described in order to validate an alternative method for rabies diagnosis in ante-mortem samples. This method was capable of accurately identifying the variant 3 in saliva specimens collected from MT patient previously genotyped as hematophagous bat lineage. The hair follicle and saliva specimens from MT and MG patients, respectively, yielded high Ct (threshold cycle) values (between 35 and 38), suggesting low viral load. This assay failed to detect amplification in the challenge virus standard (CVS) strain and saliva collected from MA patient (genotyped as variant 2) due to mismatches between the primers/probe sets and the target N gene. Thus, our results showed the usefulness of real time RT-PCR as a rapid alternative to DNA sequencing (at least four times faster) for the confirmation of rabies diagnosis.