Doenças Virais do Sistema Nervoso

David Driemeier
UFRGS

XVIII Encontro Regional
Abraves PR 2024

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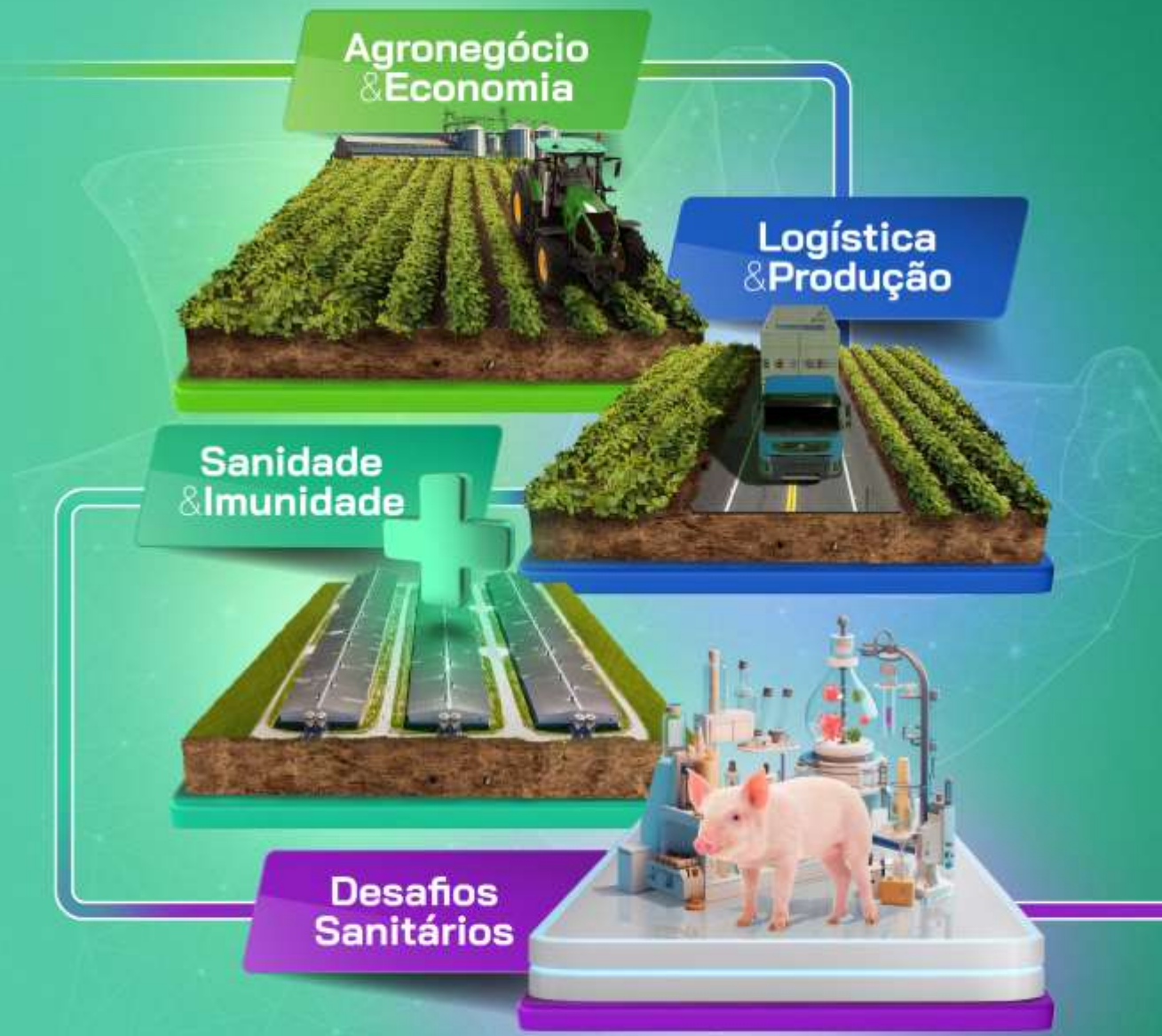


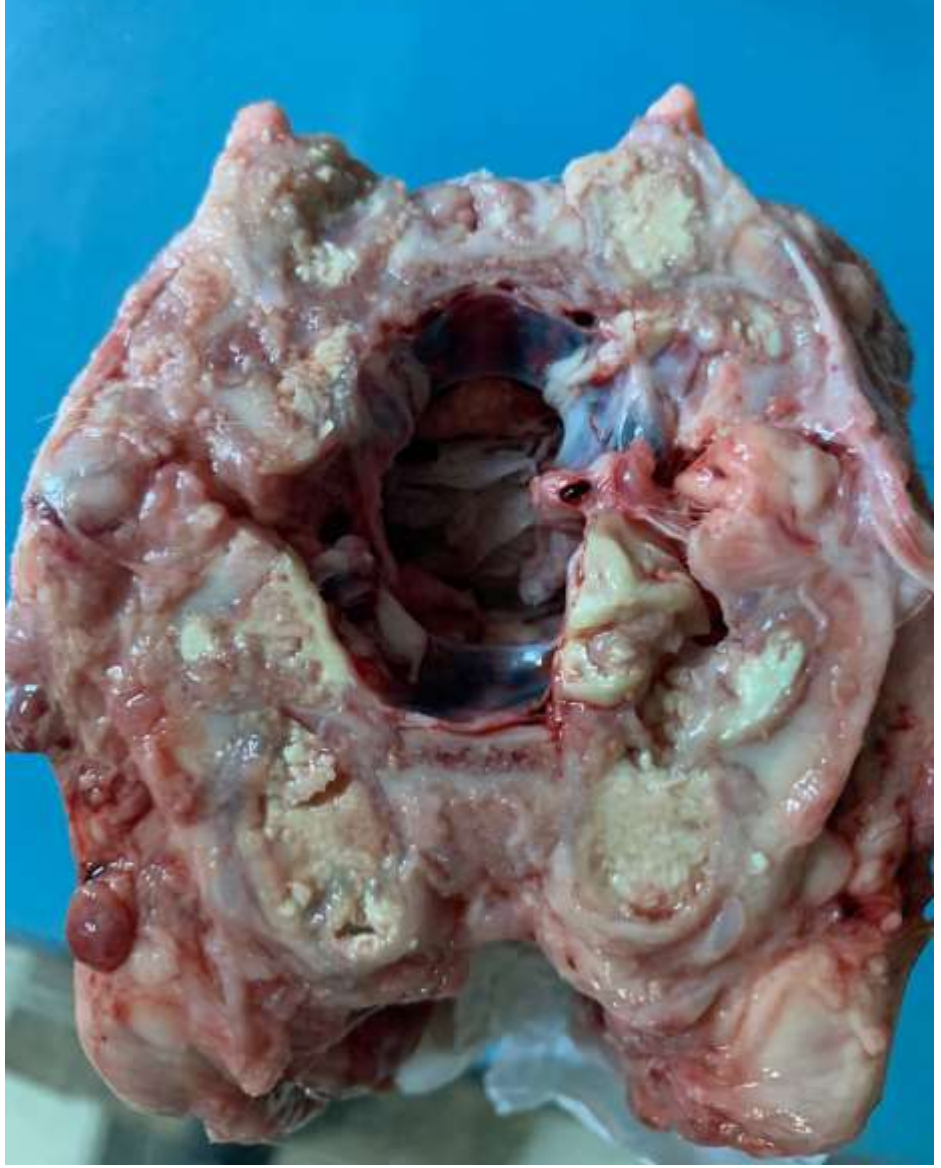
CAUSA E EFEITO

- **Quase** todas as doenças infecciosas na produção suína são multicausais. Fatores Ambientais e Manejo são importantes na manifestação clínica ou somente na produtividade. Produzimos agentes bacterianos resistentes

- O laboratório de diagnóstico deve ajudar a identificar agentes potencialmente envolvidos em uma doença

Fonte: Livro Diseases of Swine, Eleventh Edition 2019.

Aspectos de otites causadas por infeçõa nasal de Pasteurella multocida tipo D



http://contornosul.med.br/noticias/ouvido-tampado-teste-de-funcao-da-tuba-auditiva/

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Epidermite exsudativa Staphylococcus hyicus

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Resistência a antibióticos

	Bactéria(s) Isolada(s)		
Antimicrobianos	*Staphylococcus hyicus*		Halo (mm)
Amoxicilina		R	16
Amoxicilina + ácido clavulânico		S	28
Ampicilina		R	18
Ceftiofur		S	28
Ciprofloxacina		R	6
Enrofloxacina		R	12
Espectinomicina		R	6
Estreptomicina		R	6
Gentamicina		R	12
Penicilina		R	14
Sulfametoxazol + Trimetropim		S	28
Tetraciclina		S	24

R: RESISTENTE - S: SENSÍVEL - I: INTERMEDIÁRIO

Obs.: o antibiograma refere-se ao isolado da amostra de fragmento de pele - N577/23.

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Streptococcus suis

Resistência a antibióticos

Bacté

Antimicrobianos	*Streptococcus suis*	Halo (mm)
Amoxicilina	R	6
Amoxicilina + ácido clavulânico	S	20
Ampicilina	R	18
Ceftiofur	R	14
Doxiciclina	R	6
Enrofloxacina	R	6
Florfenicol	R	14
Fosfomicina	S	16
Norfloxacina	R	6
Penicilina	R	6
Sulfametoxazol + Trimetropim	R	6
Tetraciclina	R	6

R: RESISTENTE - S: SENSÍVEL - I: INTERMEDIÁRIO

Obs.: o antibiograma refere-se ao isolado da amostr

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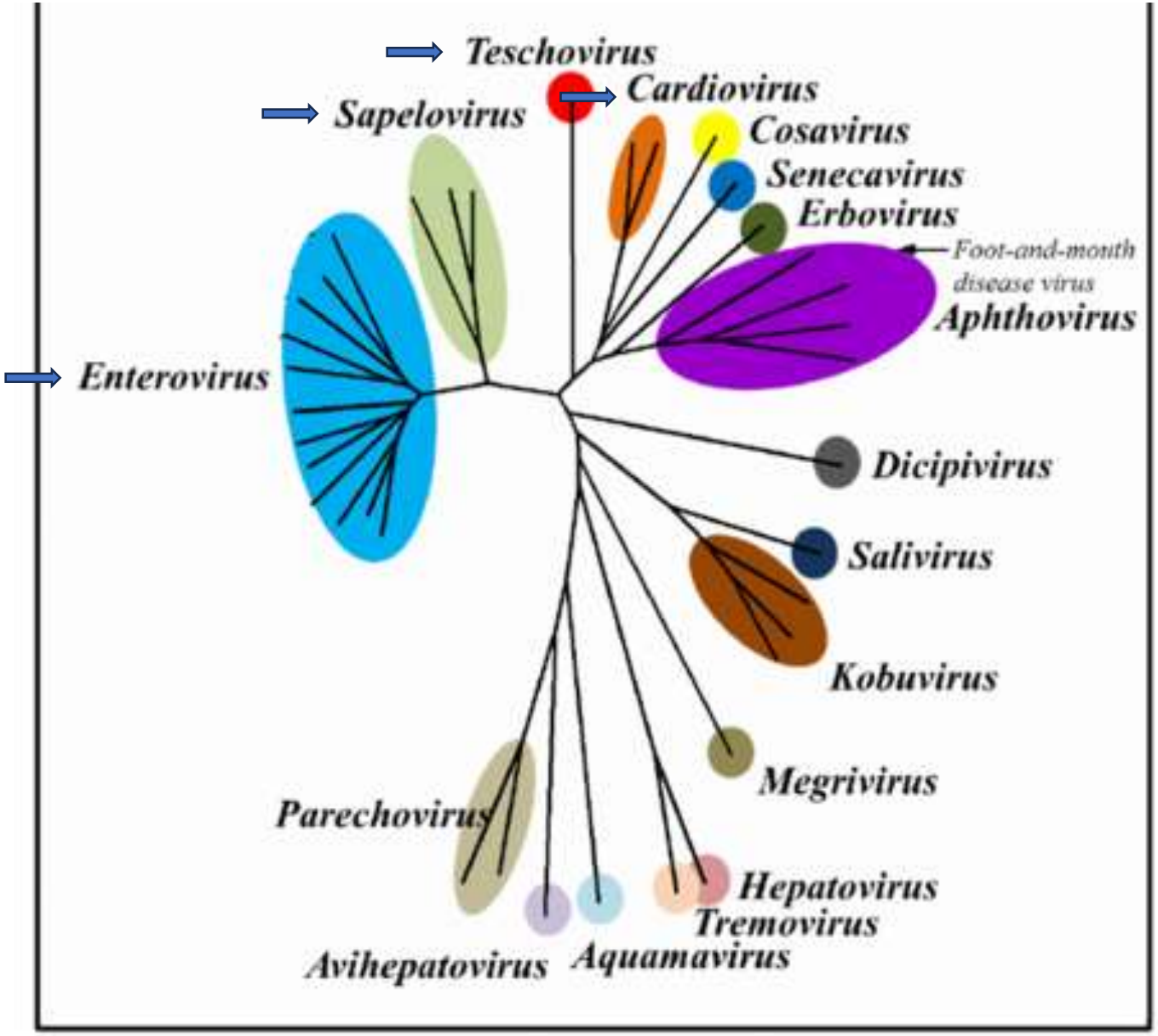
Picornavirus



Fonte: Newman-J-2015-PhD-Thesis%20(1).pdf

Causey, O. R.; Shope, R. E.; Laemmert, H. Report of an epizootic of Encephalomyocarditis virus in Pará, Brazil

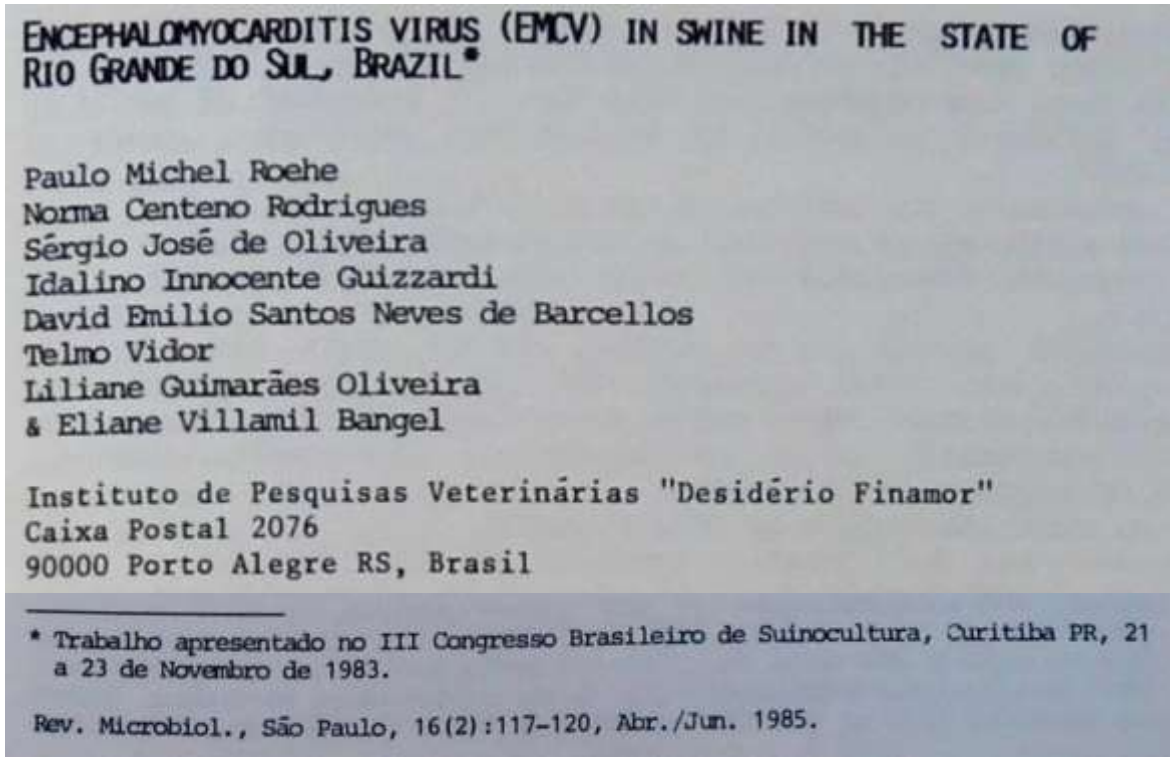
* Publicado originalmente em *Revista do Serviço Especial de Saúde Pública*, Rio de Janeiro, v. 12, n. 1, p. 47 - 50, 1962.

1962 – Pará - Detecção sorológica:

- Ratos selvagens, cavalo e vaca;

- Isolamento viral:

- Gambás, cavalos, pássaros, ratos-sentinela e mosquitos;



ENCEPHALOMYOCARDITIS VIRUS (EMCV) IN SWINE IN THE STATE OF RIO GRANDE DO SUL, BRAZIL*

Paulo Michel Roehe
Norma Centeno Rodrigues
Sérgio José de Oliveira
Idalino Innocente Guizzardi
David Emilio Santos Neves de Barcellos
Telmo Vidor
Liliane Guimarães Oliveira
& Eliane Villamil Bangel

Instituto de Pesquisas Veterinárias "Desidério Finamor"
Caixa Postal 2076
90000 Porto Alegre RS, Brasil

* Trabalho apresentado no III Congresso Brasileiro de Suinocultura, Curitiba PR, 21 a 23 de Novembro de 1983.

Rev. Microbiol., São Paulo, 16(2):117-120, Abr./Jun. 1985.

1985 - Detecção sorológica e isolamento viral:

- Suínos – Maternidade - RS;
- 1 leitegada (10 leitões – 9 morreram – 15 d

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Hindawi
Transboundary and Emerging Diseases
Volume 2023, Article ID 6582778, 6 pages
https://doi.org/10.1155/2023/6582778

WILEY | Hindawi

Research Article

Reemerging of Encephalomyocarditis Virus in Pigs in Brazil: Pathological and Viral Characterization

Anderson H. Gris,[1] **Raquel S. Alves**,[2] **Laura J. Camargo**,[2] **Letícia F. Baumbach**,[2] **Jean C. O. Menegatt**,[1] **Emanoelly M. S. Silva**,[1] **Fernanda F. Perosa**,[1] **Rafael P. Lima**,[1] **Marianna Bertolini**,[1] **Aparecida T. L. Fiúza**,[3] **Tatiane T. N. Watanabe**,[4,5] **Cláudio W. Canal**,[2] **and David Driemeier**[1]

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ACESSO AO ARTIGO COM QR-CODE

HISTÓRICO

- Desde outubro de 2022;
- Mato Grosso;
- Surtos morte súbita – Terminação – 120 a 130 dias de vida;
- Taxas de mortalidade 9 – 19% - picos de 50 óbitos;
- Alguns apresentavam tremores, grito – prévio a morte;
- Tratamento: antipirético (dipirona) e antibióticos (florfenicol, sulfa+trimetroprim, tiamulina e amoxicilina) – sem melhora;
- 3 granjas (4500 a 9000 animais) - feito o diagnóstico;
  - ✓ 22 animais necropsiados/ anatomopatológico.

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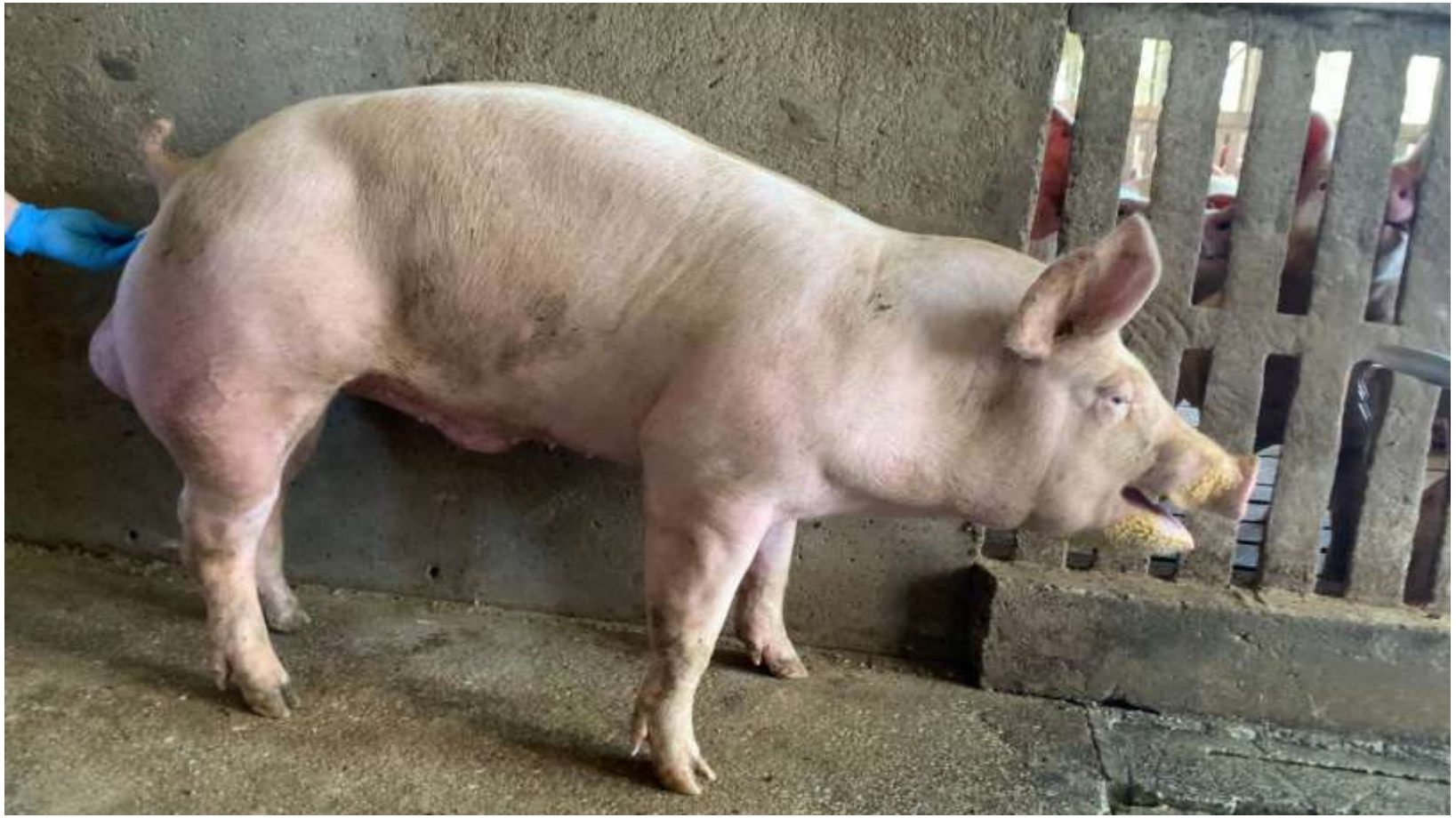
Suino com sinais clínicos de Encefalomiocardite



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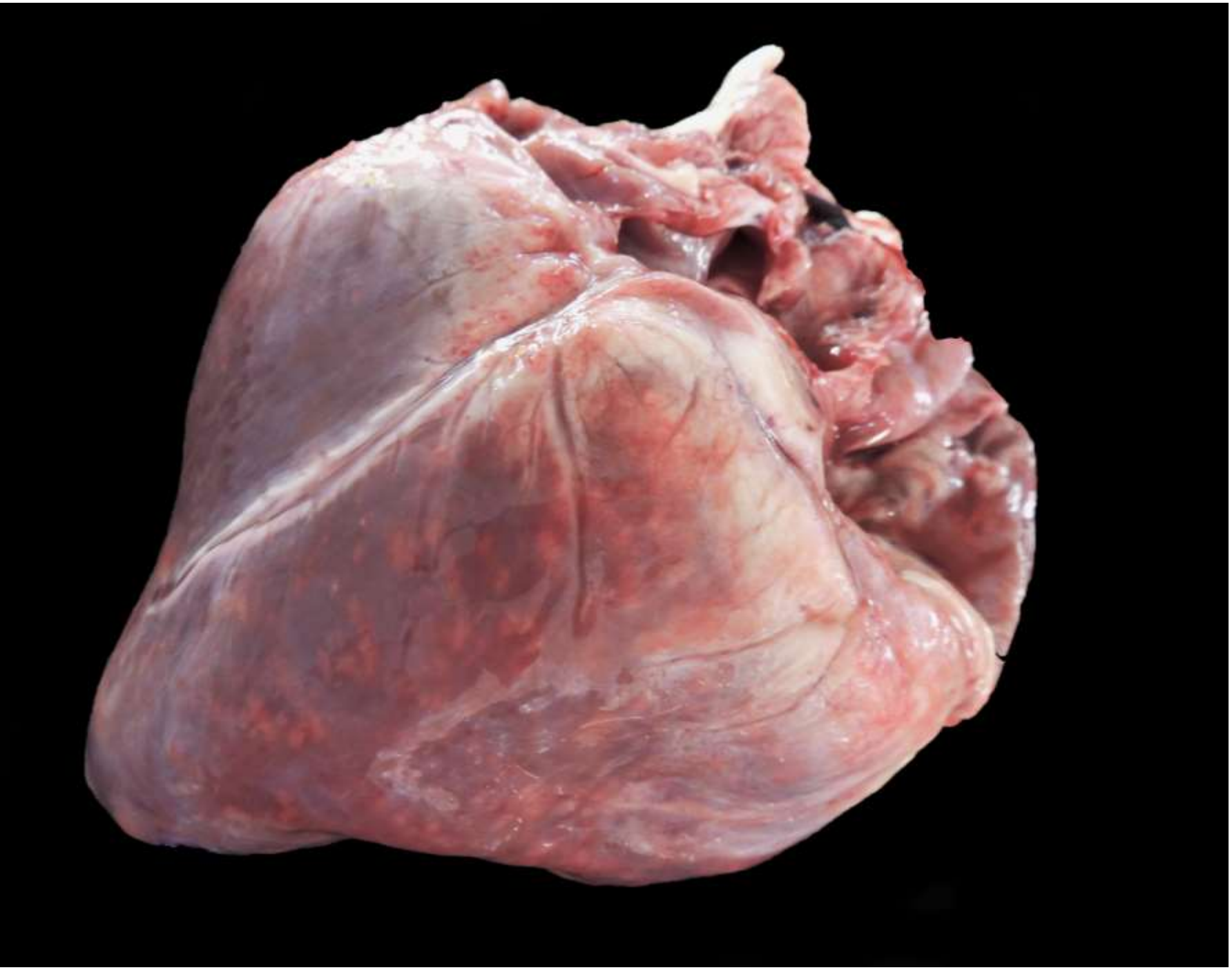

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Miocardite por encefalomiocardite vírus

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Endefalomiocardite: Inflamação e calcificação

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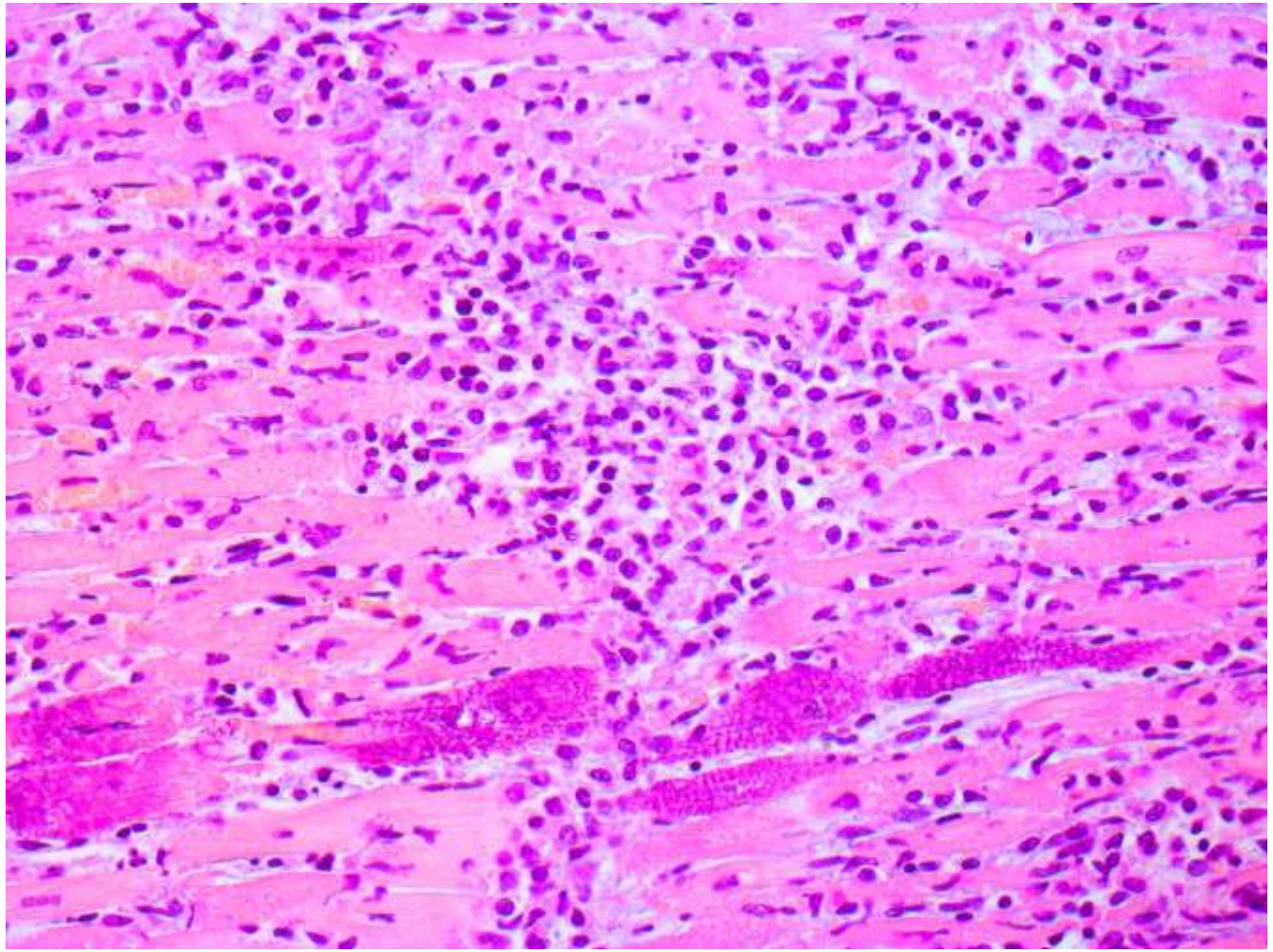
Encefalomiocardite vírus miocardite e focos de calcificação



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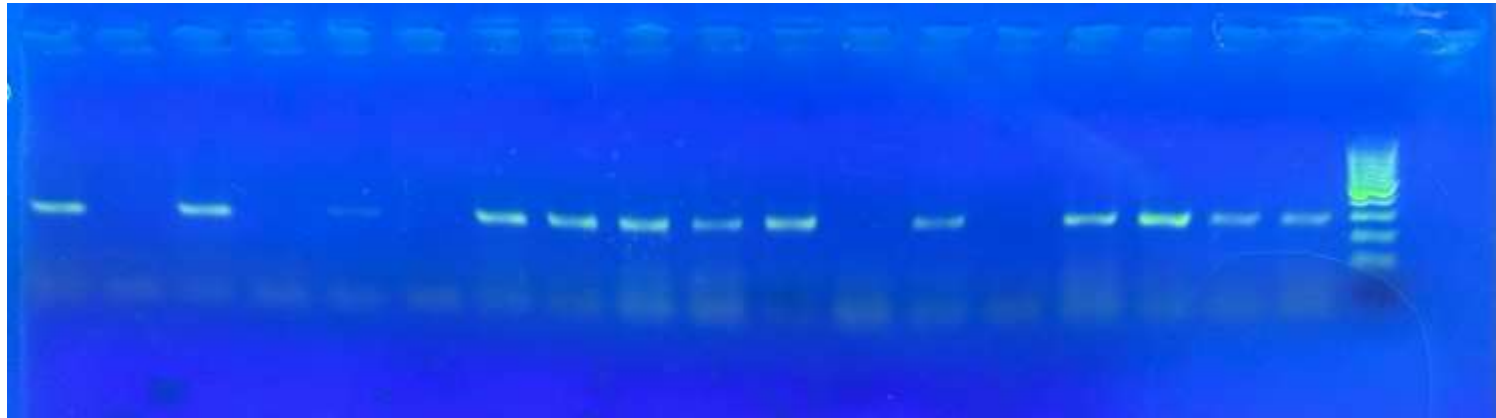
	RT-PCR (Polimerase Cardiovirus)			
Órgão/ Resultado	**Linfoide (Linfonodo e Baço)**	**Coração**	**Fígado**	**Cérebro**
Positivo	9	10	4	0
Negativo	3	1	0	5



Rattus rattus agente portador de Encefalomiocardite vírus

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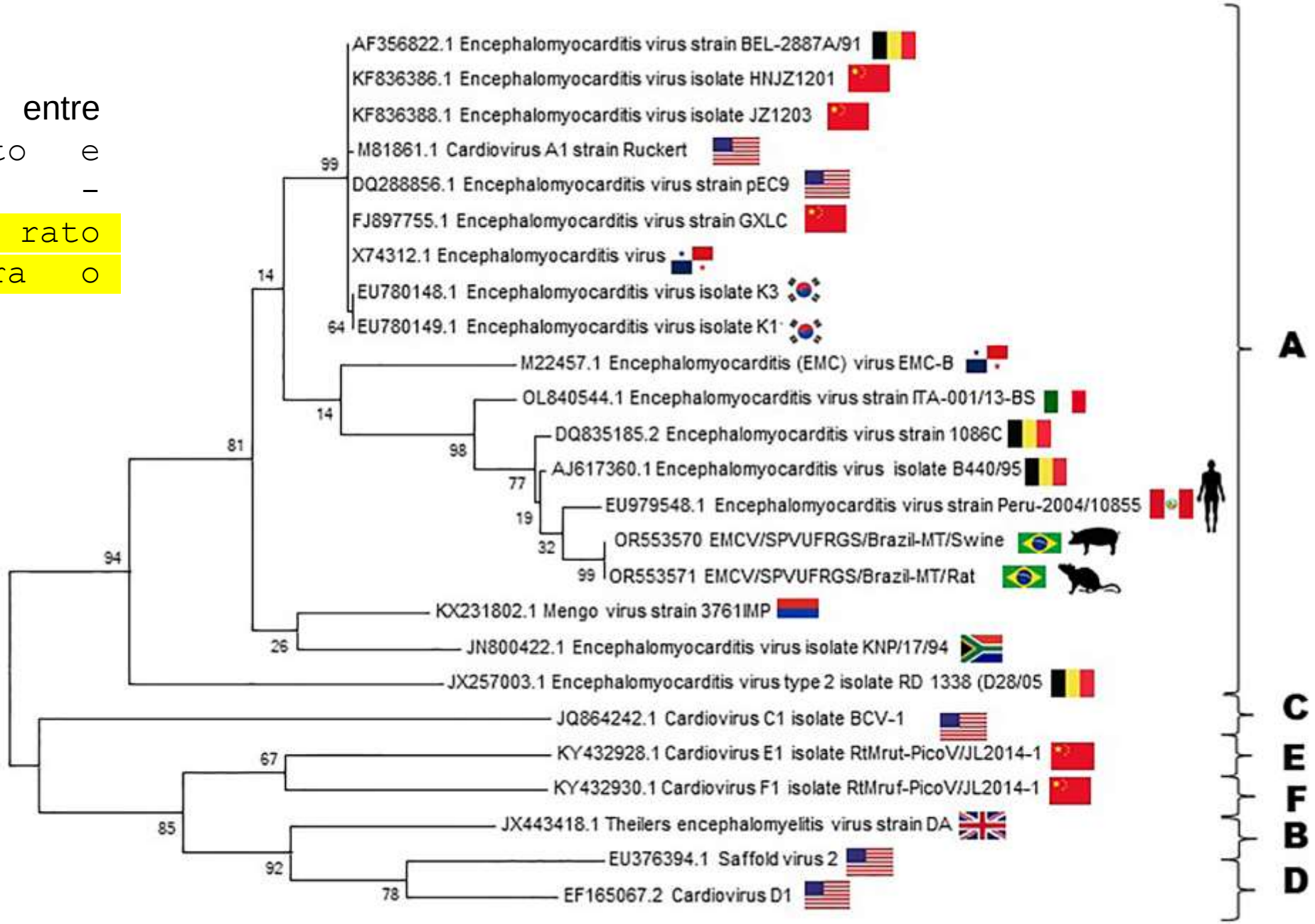
Semelhança entre sequências rato e suíno **99,57%** - Indica que o rato transmitiu para o suíno;



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Regional Paraná

EMERGING INFECTIOUS DISEASES®

ISSN: 1080-6059

EID Journal > Volume 15 > Number 4—April 2009 > Main Article

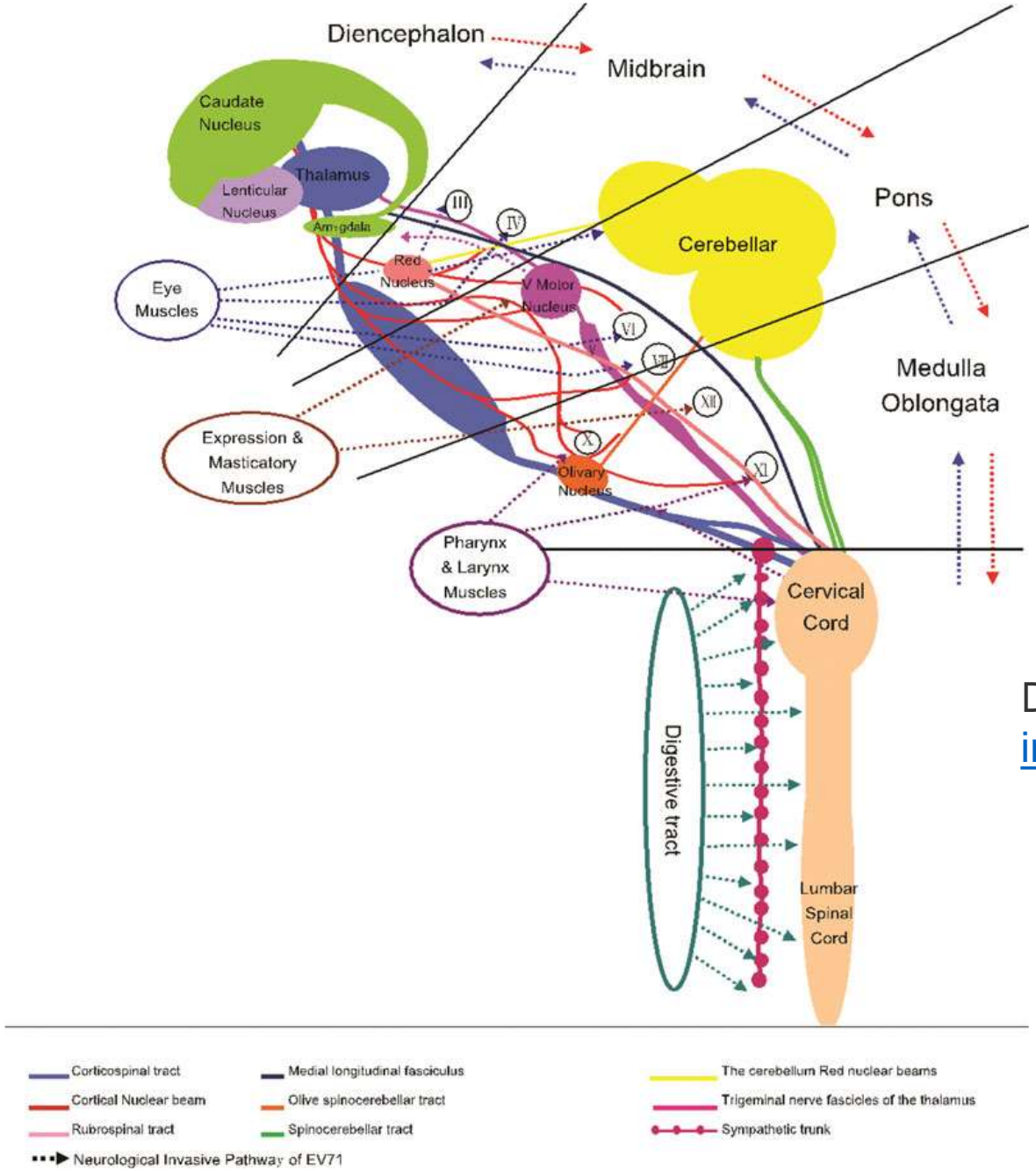
Volume 15, Number 4—April 2009
THEME ISSUE
The Amazon Region

Research

Human Febrile Illness Caused by Encephalomyocarditis Virus Infection, Peru

M. Steven Oberste, Eduardo Gotuzzo, Patrick Blair, W. Allan Nix, Thomas G. Ksiazek, James A. Comer, Pierre E. Rollin, Cynthia S. Goldsmith, James Olson, and Tadeusz J. Kochel

Author affiliations: Centers for Disease Control and Prevention, Atlanta, Georgia, USA (M.S. Oberste, W.A. Nix, T.G. Ksiazek, J.A. Comer, P. Rollin, C.S. Goldsmith); Universidad Peruana Cayetano Heredia, Lima, Peru (E. Gotuzzo); Naval Medical Research Center Detachment, Lima (P. Blair, J. Olson, T.J. Kochel)



Neurological invasion pathway of enterovirus A71.

DOI: https://doi.org/10.1017/S0950268818000468[Opens in a new window]

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David Driemeier UFRGS

Encefalomielite viral - polioencefalomielite não supurativa;

- etiologia - identificação do agente (Alexandersen et al 2019).

Agentes virais:

- *Sapelovirus A* (*porcine sapelovirus* [PSV]);
- *Teschovirus A* (*porcine teschovirus* [PTV]);
- *Mammastrovirus 3* (*porcine astrovirus* [PoAstV]) (Alexandersen et al 2019, Arruda et al 2017a, Arruda et al 2017b, Vreman et al 2020).

Trop Anim Health Prod. 2014 Mar;46(3):523-8. doi: 10.1007/s11250-013-0523-z. Epub 2013 Dec 22.

First report of Porcine teschovirus (PTV), Porcine sapelovirus (PSV) and Enterovirus G (EV-G) in pig herds of Brazil

Daiane Güllich Donin [1], Raquel de Arruda Leme, Alice Fernandes Alfieri, Geraldo Camilo Alberton, Amauri Alcindo Alfieri

Affiliations + expand

PMID: 24362793 DOI: 10.1007/s11250-013-0523-z

Abstract

Porcine teschovirus (PTV), Porcine sapelovirus (PSV) and Enterovirus G (EV-G) have been associated with enteric, respiratory, reproductive and neurological disorders. Although Brazil is the world's fourth largest producer and exporter of pork, no information on the occurrence of PTV, PSV and EV-G

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Pesq. Vet. Bras. 35(5):403-408, maio 2015
DOI: 10.1590/S0100-736X2015000500003

Molecular survey of *porcine teschovirus*, *porcine sapelovirus*, and *enterovirus G* in captive wild boars (*Sus scrofa scrofa*) of Paraná state, Brazil[1]

Daiane G. Donin[1], Raquel de A. Leme[2], Alice F. Alfieri[2], Geraldo C. Alberton[1] and Amauri A. Alfieri[2]*

ABSTRACT.- Donin D.G., Leme R.A., Alfieri A.F., Alberton G.C. & Alfieri A.A. 2015. **Molecular survey of *porcine teschovirus*, *porcine sapelovirus*, and *enterovirus G* in captive wild boars (*Sus scrofa scrofa*) of Paraná state, Brazil.** *Pesquisa Veterinária Brasileira 35(5):403-408.* Laboratório de Virologia Animal, Departamento de Medicina Veterinária Preventiva, Universidade Estadual de Londrina, Rodovia Celso Garcia Cid, Campus Universitário, Cx. Postal 10011, Londrina, PR 86057-970, Brazil. E-mail: alfieri@uel.br

Porcine teschovirus (PTV), porcine sapelovirus (PSV), and enterovirus G (EV-G) are infectious

Springer Brazilian Journal of Microbiology

Braz J Microbiol. 2019 Jan; 50(1): 321–327.
Published online 2018 Dec 3. doi: 10.1007/s42770-018-0018-1

PMCID: PMC6863196
PMID: 30637635

Longitudinal survey of *Teschovirus A*, *Sapelovirus A*, and *Enterovirus G* fecal excretion in suckling and weaned pigs

Raquel A. Leme,[#1,2] Danilo R. Silva,[#1] Elis Lorenzetti,[1,2] Daniel A. Moraes,[1] Alice F. Alfieri,[1,2] and Amauri A. Alfieri[1,2]

Trabalho importante que prova quando há excreção viral Amostras fecais de leitões lactentes foram negativas para os três picornavírus entéricos.
No entanto, esses picornavírus foram detectados em 22/27 amostras fecais de leitões desmamados.
Este estudo fornece novos dados sobre a dinâmica de infecção de TV-A, SV-A e EV-G.

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David Driemeier UFRGS

Suínos com paresia dos membros anteriores Techovirus

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Paresia anterior por Teschovirus

Teschovirus paresia predominante dos membros pélvicos

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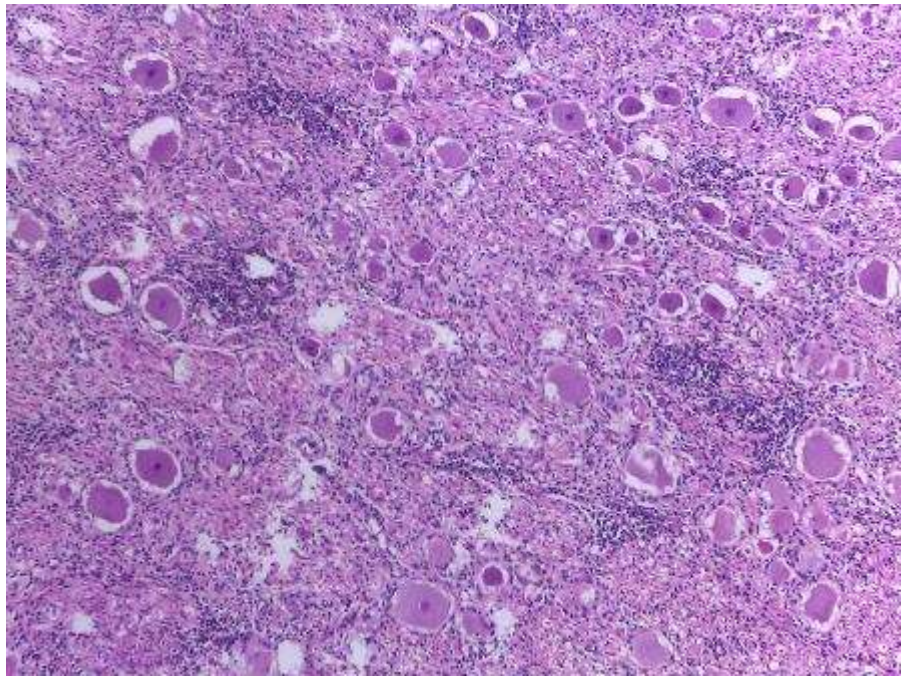
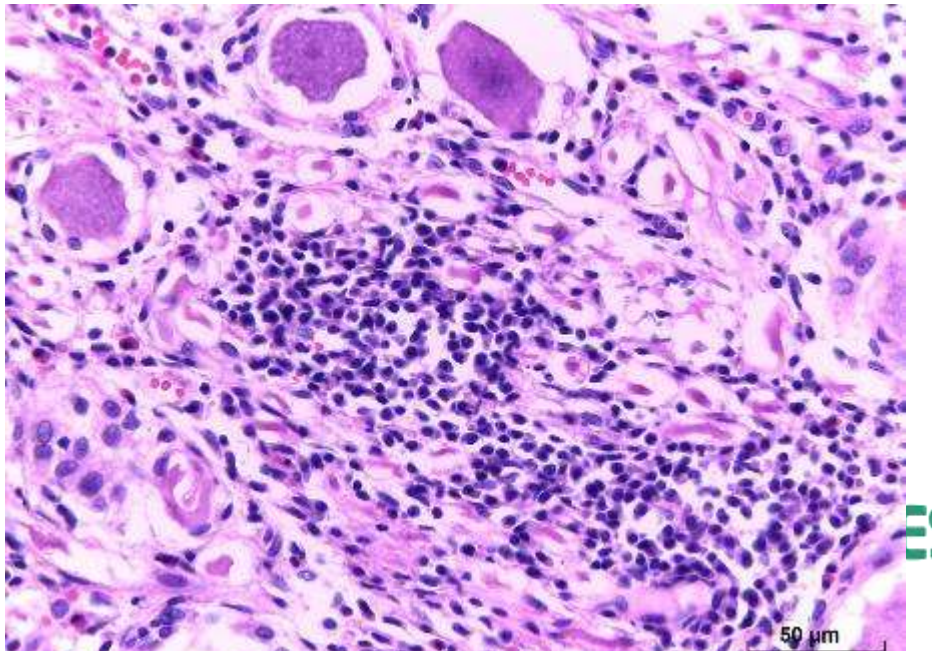
Polioencefalomielite causada por Teschovirus





EMERGING INFECTIOUS DISEASES®

ISSN: 1080-6059

Volume 23, Number 12—December 2017

Research Letter

Porcine Astrovirus Type 3 in Central Nervous System of Swine with Polioencephalomyelitis

Bailey Arruda✉, Paulo Arruda, Melissa Hensch, Qi Chen, Ying Zheng, Chenghuai Yang, Igor Renan Honorato Gatto, Franco Matias Ferreyra, Phil Gauger, Kent Schwartz, Laura Bradner, Karen Harmon, Ben Hause, and Ganwu Li

Author affiliations: Iowa State University, Ames, Iowa, USA (B. Arruda, Q. Chen, Y. Zheng, C. Yang, F.M. Ferreyra, P. Gauger, K. Schwartz, L. Bradner, K. Harmon, G. Li); Veterinary Resources Inc., Ames (P. Arruda); The Maschhoffs, Carlyle, Illinois, USA (M. Hensch); São Paulo State University (Unesp), Jaboticabal, Brazil

O Isolamento de um Teschovirus suíno do trato gastrointestinal de um leitão com sinais nervosos não estabelece a etiologia da doença.
A infecção entérica pode ser coincidência.

Fonte: Livro Diseases of Swine, Eleventh Edition 2019

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Regional Paraná

Brazilian Journal of Microbiology
https://doi.org/10.1007/s42770-021-00509-z

VETERINARY MICROBIOLOGY - SHORT COMMUNICATION

Swine polioencephalomyelitis in Brazil: identification of *Teschovirus A*, *Sapelovirus A*, and *Enterovirus G* in a farm from Southern Brazil

Márcia Elisa Hammerschmitt[1] · Paula Rodrigues de Almeida[2] · Bianca Santana de Cecco[1] · Marina Paula Lorenzett[1] · Claiton Ismael Schwertz[1] · Raquel Aparecida Sales da Cruz[3] · Rafaela Albuquerque Caprioli[1] · Daniela Teresa Schuh[4] · Meriane Demoliner[2] · Ana Karolina Antunes Eisen[2] · Fernando Rosado Spilki[2] · Saulo Petinatti Pavarini[1] · David Driemeier[1]

Received: 23 October 2020 / Accepted: 24 April 2021

Link da publicação on-line https://rdcu.be/ck7Z1

Abstract

Porcine encephalomyelitis can be associated with many etiologies, including viral agents, such as *Porcine teschovirus* (PTV), *Porcine sapelovirus* (PSV), and *Porcine astrovirus* (PoAstV). In this study, we investigated the presence of these viruses in a neurological disease outbreak in a swine farm in Southern Brazil. The piglet production farm unity had 1200 weaning piglets, and 40 piglets with neurological signs such as motor incoordination, paresis, and paralysis of hind limbs, with an evolution time of approximately 4 days. Among these, 10 piglets were submitted to postmortem examination. Gross lesions were restricted to a mild enlargement of the nerve roots and ganglia of spinal cord segments. The microscopic lesions were characterized by nonsuppurative encephalomyelitis and ganglioneuritis with evident neuronal degeneration and necrosis. Samples of the central nervous system (CNS), cerebrospinal fluid, and feces were collected and submitted to molecular

Granja: Casos de Teschovirus

- 2500 fêmeas
- 1200 leitões desmamados - 40 a 65 dias
- 40 leitões afetados - 10 submetidos à eutanásia.

Sinais clínicos:

- incoordenação motora;
- paresia e paralisia dos membros pélvicos.

Isolamento viral:

Sequenciamento:

- similares a PTV6;
- distantes PTV3, PTV5, PTV10 e PTV11.

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Pigs	Samples	RT-PCR			
		PTV	EV	PSV	PoAstV
#1	CNS	+	+	+	ND
	CSF	ND	ND	ND	ND
#2	CNS	+	+	+	ND
	CSF	ND	ND	ND	ND
#3	CNS	+	ND	ND	ND
	CSF	ND	ND	ND	ND
#4	CNS	+	ND	ND	ND
	CSF	+	ND	ND	ND
#5	CNS	+	ND	+	ND
	CSF	+	ND	ND	ND
	Feces	+	+	+	ND
#6	CNS	+	ND	ND	ND
	CSF	+	ND	ND	ND
	Feces	+	+	+	ND
#7	CNS	+	ND	ND	ND
	CSF	+	ND	+	ND
	Feces	+	ND	+	ND
#8	CNS	+	ND	ND	ND
	CSF	ND	ND	ND	ND
	Feces	+	+	+	ND
#9	CNS	+	ND	+	ND
	CSF	ND	ND	ND	ND
	Feces	+	+	+	ND
#10	CNS	+	ND	ND	ND

CNS, central nervous system;
CSF, cerebrospinal fluid;
ND, not determinated.

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Achados moleculares:

- PSV (8/10)
- EV-G (7/10)
- inconstante;

- PoAstV detectado somente nas fezes dos animais sem sinais clínicos

Não estavam associados na doença deste estudo.

Botulismo – Diagnostico diferencial

Poliomielomalacia por intoxicação por selênio- Diagnóstico diferencial

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Deficiência de ácido pantotênico
Vitamina B5- Passo de ganso

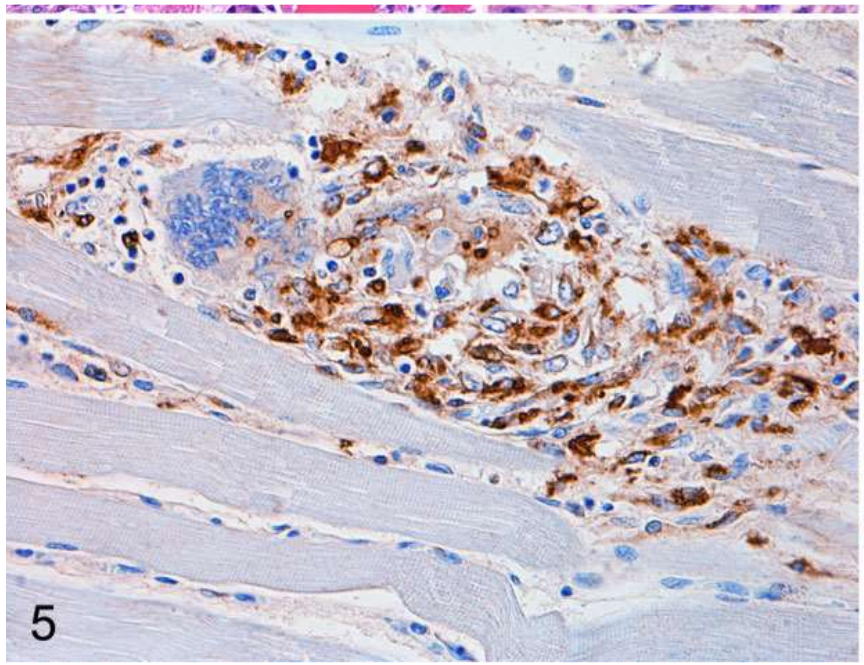
Vet Pathol. 2018 Mar;55(2):268-272. doi: 10.1177/0300985817736114. Epub 2017 Oct 19.

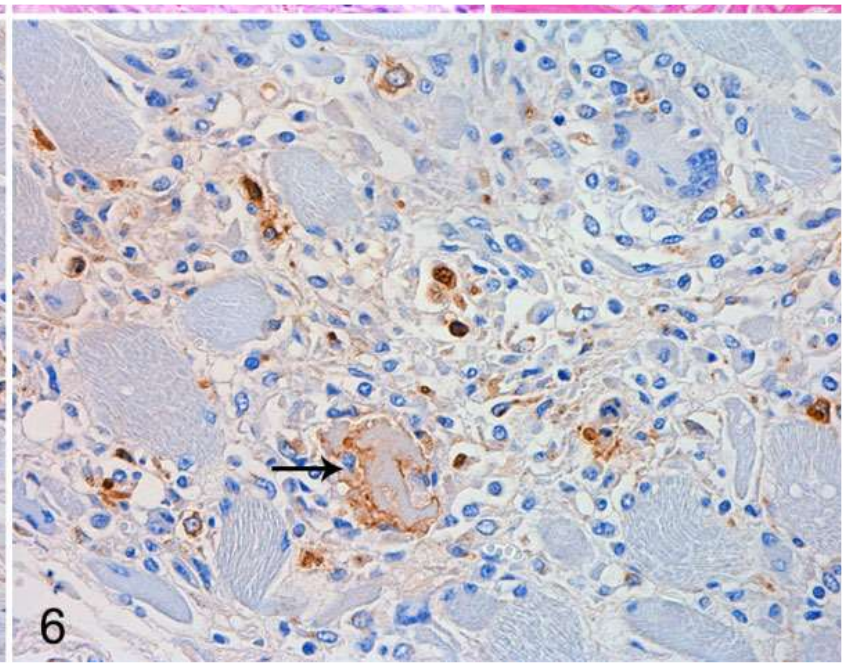
Granulomatous Necrotizing Myositis in Swine Affected by Porcine Circovirus Disease.

Konradt G[1], Cruz RAS[1], Bassuino DM[1], Bianchi MV[1], de Andrade CP[1], da Silva FS[1], Driemeier D[1], Pavarini SP[1].

Author information

Figures 1, 2. Granulomatous necrotizing myositis in porcine circovirus disease, pigs. **Figure 1.** Pig No. 4. Hind limb paresis and sternal recumbency. **Figure 2.** Pig No. 3. Hind limb. The cut surface shows locally extensive pallor involving large areas of muscle. Inset: gracilis muscle with locally extensive hemorrhages.





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Senecavirus A surgimento final de 2014 e início de 2015 O **senecavírus** A (SVA, anteriormente conhecido como vírus Seneca **Valley**) é um picornavírus

Senecavirus A

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Achados em frigorifico 2018

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JOURNAL OF GENERAL VIROLOGY Volume 97, Issue 12

Research Article | Free

Pathogenesis of Senecavirus A infection in finishing pigs

Lok R. Joshi[1], Maureen H. V. Fernandes[1], Travis Clement[1], Steven Lawson[1], Angela Pillatzki[1], Talita P. Resende[2], Fabio A. Vannucci[2], Gerald F. Kutish[3], Eric A. Nelson[1], Diego G. Diel[1]

View Affiliations

First Published: 16 December 2016 | https://doi.org/10.1099/jgv.0.000631

Sinais clínicos e lesões 4 dias Pi até 10 dias como letargia e febre discreta .

Excreção de vírus ate 28 dias pós infecção. Nas fezes, secreção oral e secreção nasal.

38 dias pos infecção havia vírus em Tonsila No 5 dia começam a aparecer

Dumbo- PCV-3

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PCV-3

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PCV-3

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PCV-3

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PCV-3

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PCV-3 Natimorto

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PCV-3

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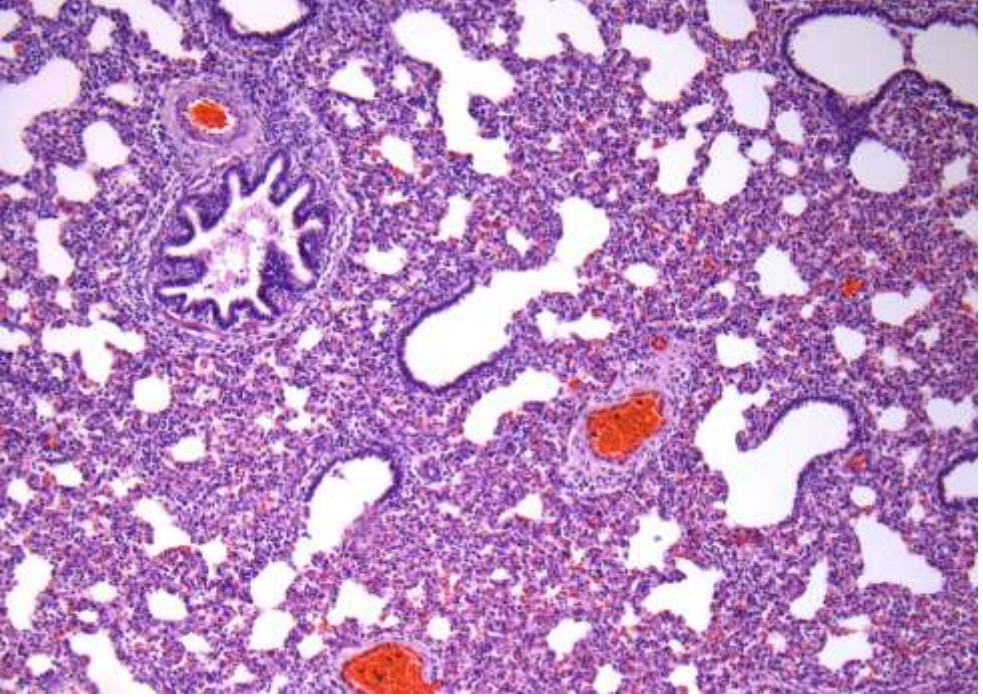
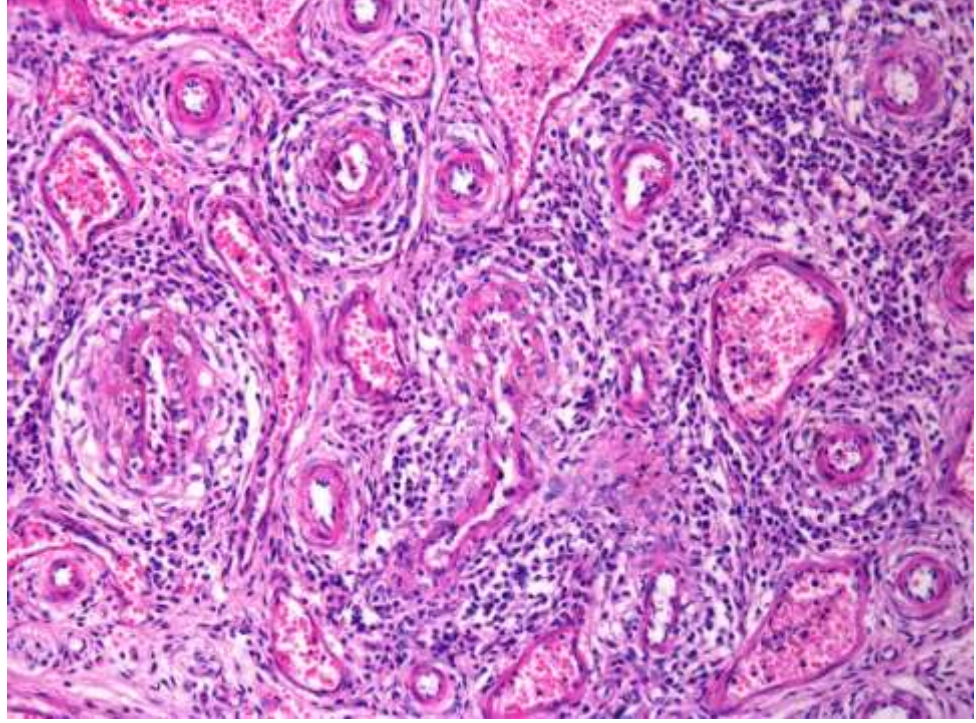
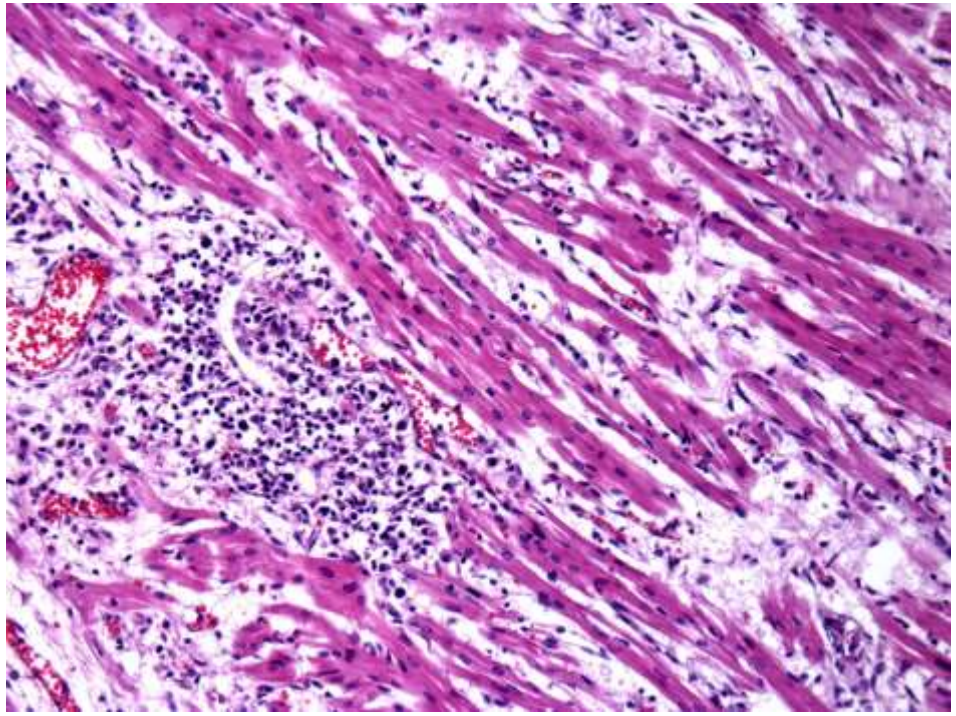


PCV-3





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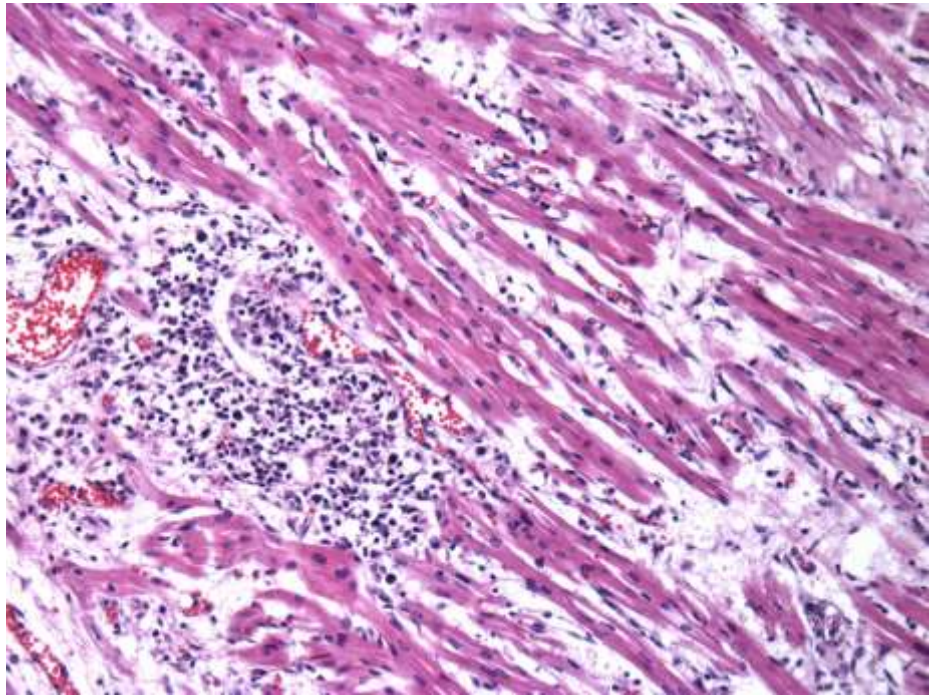
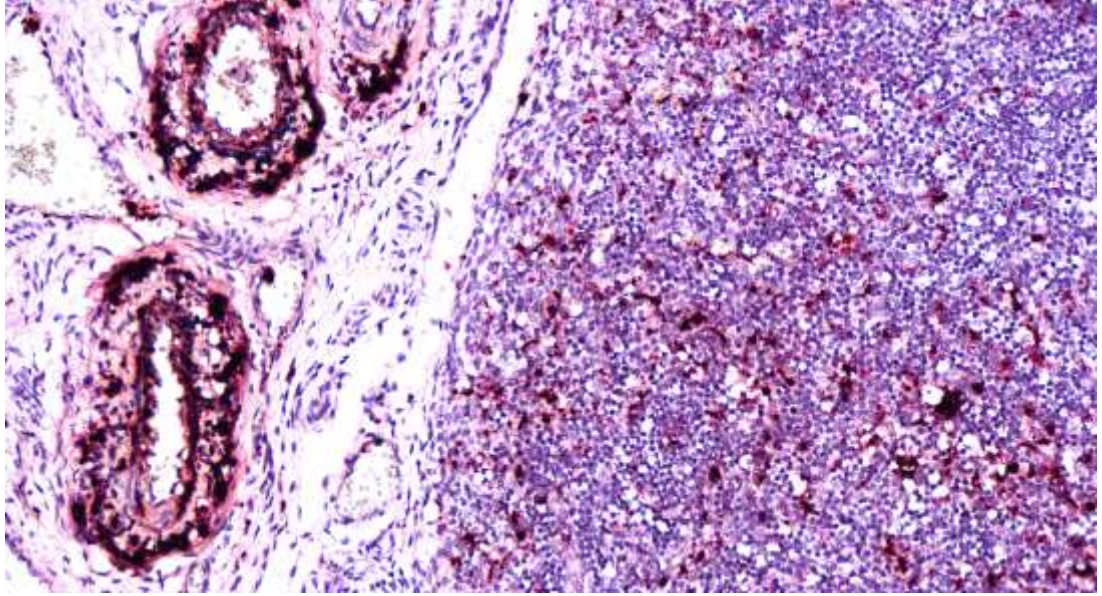
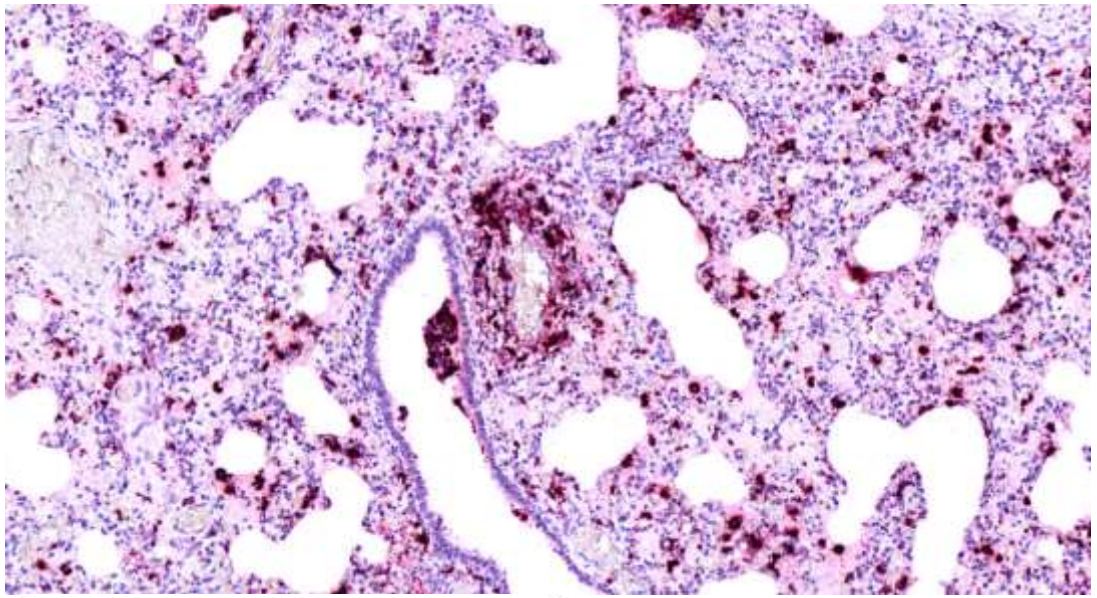
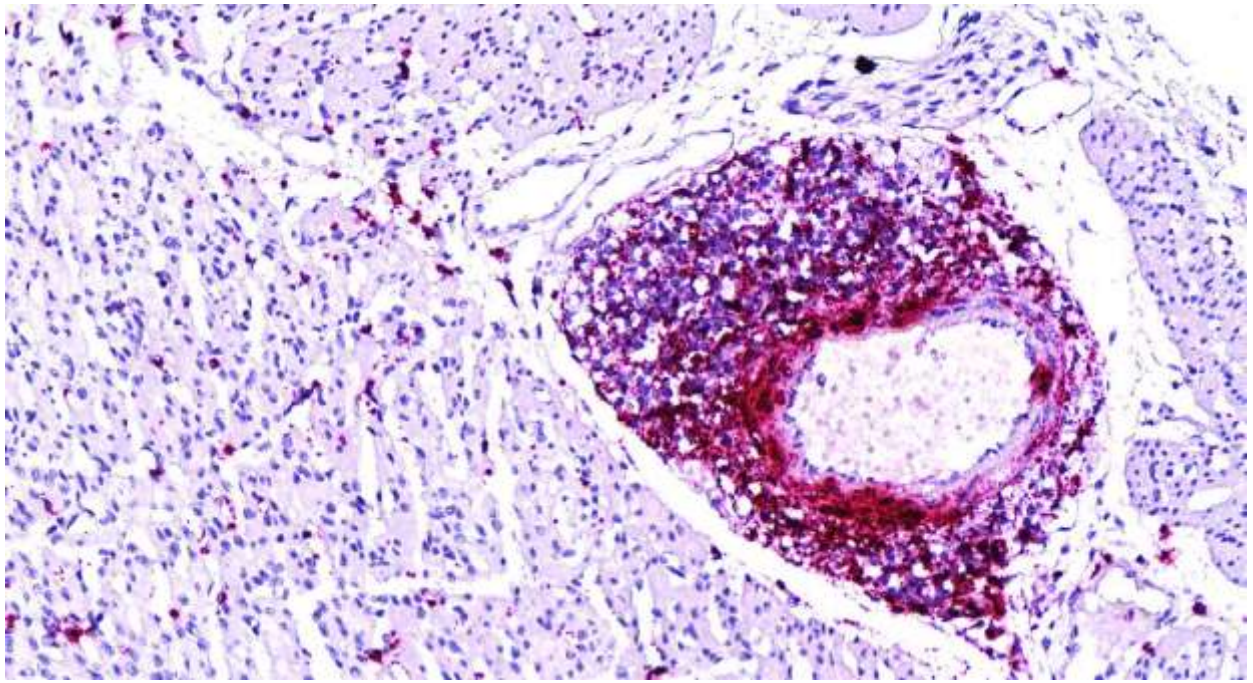




PCV-3 Hibridização in situ marcação predominantemente perivascular no linfonodo pulmão e coração





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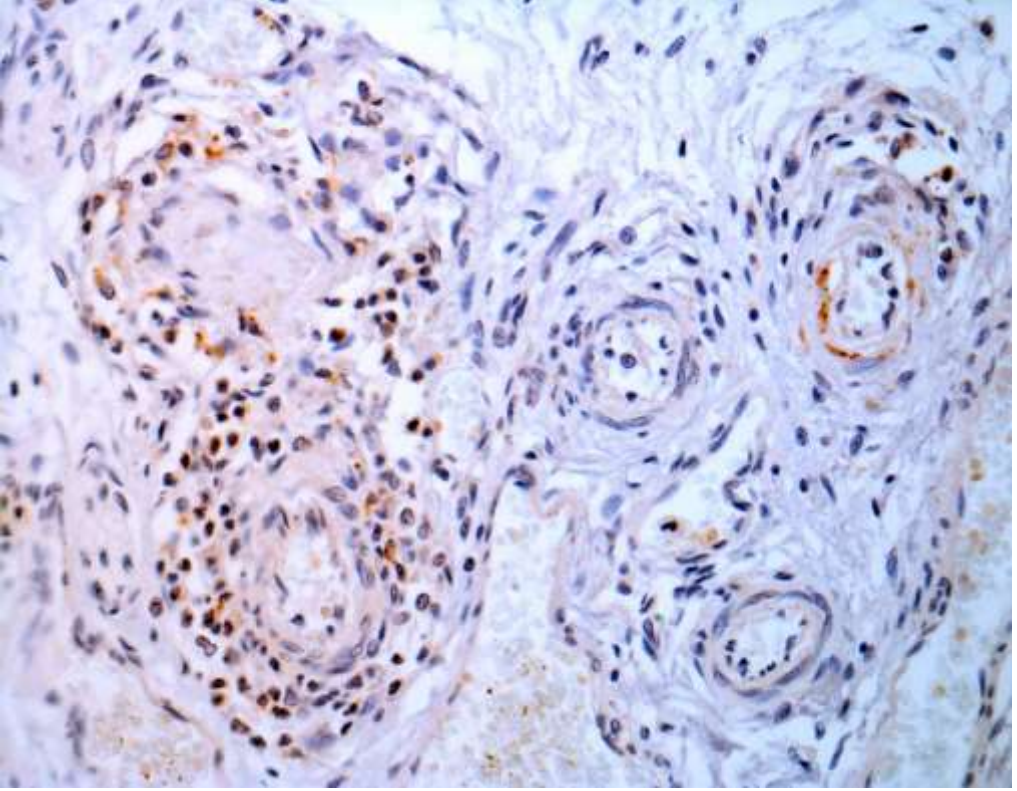
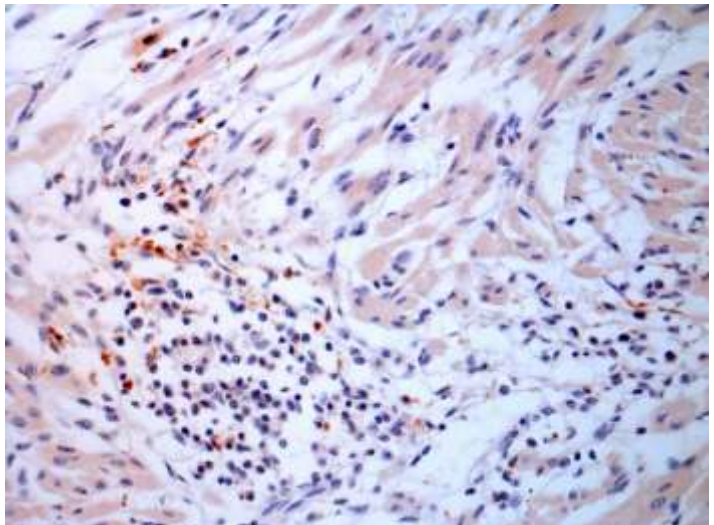
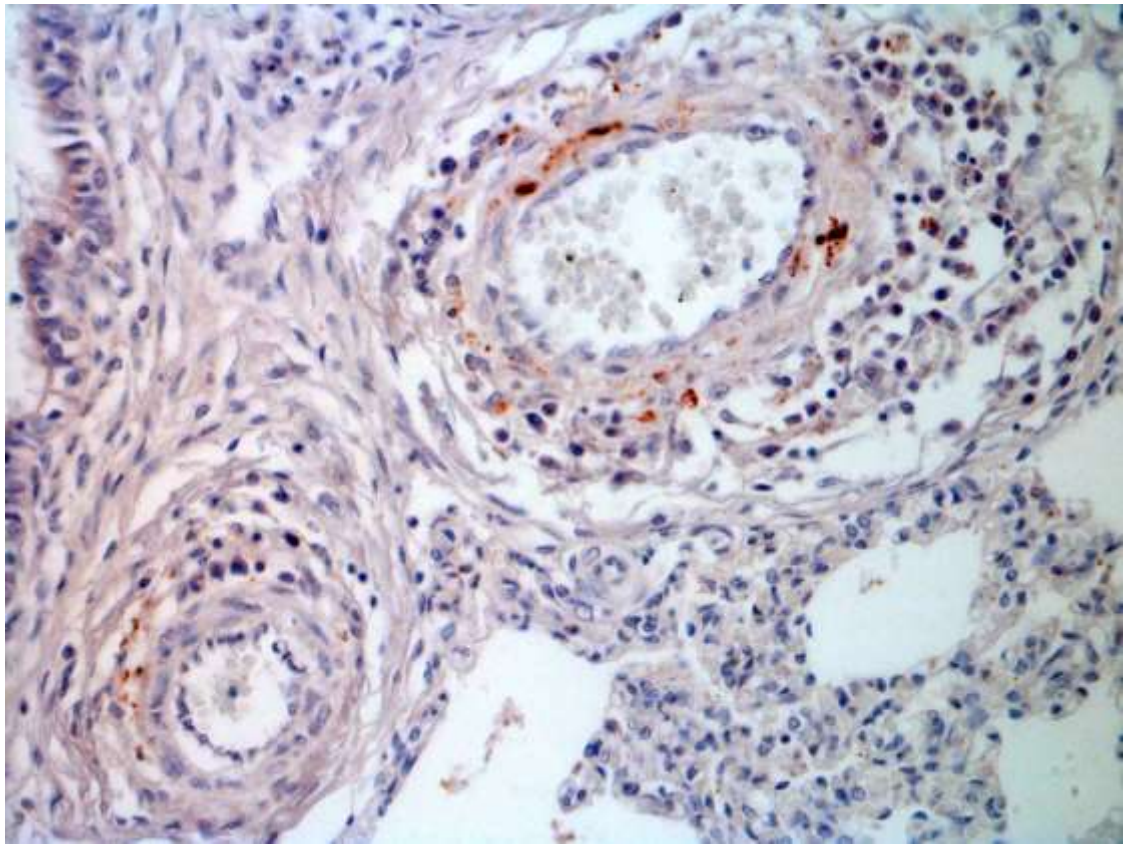
PCV-3 Imuno-histoquímica







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VETERINARY MICROBIOLOGY - SHORT COMMUNICATION

A putative PCV3-associated disease in piglets from Southern Brazil

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Abstract

Porcine circovirus type 3 (PCV3) is widely distributed worldwide, and its association with clinical disease in pigs has been studied in recent years. This study describes a novel PCV3-associated clinical disease in piglets from Brazil. Since September 2020, we received 48 piglets with large caudally rotated ears, weakness, and dyspnea. Most piglets were from gilts and died 1–5 days after birth. Two piglets that presented similar clinical signs and survived until 35–60 days had a marked decrease in growth rate. At post-mortem examination, the lungs did not collapse due to marked interlobular edema. Microscopically, the main feature was multisystemic vasculitis characterized by lymphocytes and plasma cells infiltrating and disrupting the wall of vessels, lymphohistiocytic interstitial pneumonia, myocarditis, and encephalitis. Viral replication was confirmed in these lesions through in situ hybridization (ISH-RNA). Seventeen cases were positive for PCV3 in PCR analysis, and all samples tested negative for porcine circovirus (PCV1, and PCV2); porcine parvovirus (PPV1, 2, 5, and 6); atypical porcine pestivirus (APPV); porcine reproductive and respiratory syndrome (PRRSV); and ovine herpesvirus-2 (OvHV-2). Phylogenetic analysis of the ORF2 sequence from five different pig farms showed that the PCV3a clade is circulating among Brazil's swineherds and causing neonatal piglet losses. This is the first report of PCV3a-associated disease in neonatal pigs from farms in Brazil.

Keywords Diseases of swine · Infectious diseases · PCV3 · Dyspnea · Vasculitis · Diagnosis

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SHORT COMMUNICATIONS

PCV3-associated reproductive failure in pig herds in Brazil

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Abstract

Porcine circovirus type 3 (PCV3) has been widely detected worldwide in healthy and sick pigs. Recently its association with clinical disease and reproductive failure has been proven through the detection of intralesional viral mRNA in affected pigs. This study aims to describe the occurrence of PCV3-associated reproductive failure (abortions) in sow herds in southern Brazil. Eleven fetuses from five different litters from two herds were analyzed. These herds reported an increase in the rate of late-gestation abortions, stillbirths, and the percentage of mummified piglets. At gross examination, six of the fetuses had large caudally rotated ears and one fetus was mummified. Microscopically, multisystemic vasculitis, lymphocytic interstitial pneumonia, myocarditis, and encephalitis were observed. These six fetuses with gross and histological lesions were positive in qPCR analysis for PCV3, and PCV3 transcription was shown through in situ hybridization (ISH-RNA) within the histologic lesions. Samples from all 11 fetuses tested negative in PCR exam for Porcine Circovirus type 1 and 2, Porcine Reproductive and Respiratory Syndrome, Porcine Parvovirus, and Atypical Porcine Pestivirus. Furthermore, based on the ORF2 analysis, the PCV3a clade was identified. This is the first report of PCV3a-associated reproductive failure in pig herds in South America.

Keywords Swine · PCV3 · Reproductive failure · Abortion · Vasculitis · Diagnosis

OPEN ACCESS

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Porcine circovirus type 3: immunohistochemical detection in lesions of naturally affected piglets

Franciéli Adriane Molossi[1], Bruno Albuquerque de Almeida[1], Bianca Santana de Cecco[2], Caroline Pissetti[3], Lauren Ventura[3], Luciano Brandalise[4], Gustavo Simão[4], Fabio Vanucci[5], Tatiane Terumi Negrao Watababe[6,7], Itabajara da Silva Vaz Jr.[1,8,9] and David Driemeier[1]*

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This study aimed to evaluate the relationship between porcine circovirus type 3 (PCV3) viral load and histopathological findings in perinatal piglet tissues and to develop an immunohistochemical method for detecting the virus in lesions. The quantitative polymerase chain reaction (qPCR) cycle threshold (Ct) when amplifying PCV3 DNA and the area of perivascular inflammatory infiltrates in different organs [central nervous system (CNS), lung, heart, liver, spleen, and lymph nodes] were compared. To develop an immunohistochemistry technique, rabbit sera were produced against PCV3 capsid protein peptides selected using

SCIENTIFIC ARTICLE

Molecular detection of porcine circovirus (PCV2 and PCV3), torque teno swine virus 1 and 2 (TTSuV1 and TTSuVk2), and histopathological findings in swine organs submitted to regular slaughter in Southeast, Brazil

Detecção molecular de circovírus suínos (PCV2 e PCV3), torque teno vírus suínos 1 e 2 (TTSuV1 e TTSuVk2) e achados histopatológicos em órgãos de suínos submetidos a abate regular na região Sudeste do Brasil

Amanda Eduarda de Souza[1], Ana Claudia de Menezes Cruz[2], Ingrid Lyrio Rodrigues[2,3], Eulógio Carlos Queiroz de Carvalho[4], Rafael BrandãoVarella[5], Raphael Mansur Medina[6], Rachel Bittencourt Ribeiro Rodrigues[6], Renato Luiz Silveira[7] & Tatiana Xavier de Castro[5*]

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Abstract

Porcine circovirus 2 and 3 (PCV2 and PCV3) and torque teno sus virus 1 and 2 (TTSuV1 and TTSuVk2) are important pathogens in pig associated with post-weaning mortality, different clinical syndromes in adults (PCVAD), and a decrease of average daily weight gain (PCV2-SI) but little is known about the infection

Souza et al. 2023. Brazilian Journal of Veterinary Medicine, 45, e000623. DOI: 10.29374/2527-2179.bjvm000623 2/9

- A análise tecidual por nested PCR mostrou a presença de DNA de PCV2 em 14 (10%), PCV3 em 19 (13,6%), TTSuV1 em 18 (12,9%) e de TTSuVk2 em 42 (30%) das amostras. Todos os quatro vírus foram detectados no pulmão, rim, nódulo linfático e fígado

Tremor congênito .

- Tremor congenito classificado como Type A or Type B
  - Type A comprises the cases with visible histological lesions in the **brain** and **spinal cord**
    - Type A-I cases of congenital tremor are caused by classical swine fever virus (CSFV) and are characterized by cerebellar hypoplasia
    - Type A-II tremor em leitões filhos de leitoas
    - Type A-III congenital tremor is a genetic (sex-linked) defect existing only in the Landrace breed
    - Type A IV genético (autosomal-linked) defect in the Saddleback breed
    - Type A-V casos de intoxicação por triclorfon
  - Type B Sem lesões

Primeira descrição de pestivirus atípico 2015

- In 2015, a novel pestivirus was identified in five serum samples from pigs involved in a porcine reproductive and respiratory syndrome virus (PRRSV) metagenomics sequencing study conducted
- Hause BM, Collin EA, Peddireddi L, et al. Discovery of a novel putative atypical porcine pestivirus in pigs in the USA. J Gen Virol. 2015;96(10):2994-2998.

ABRAVES
Regional Paraná

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RAPID COMMUNICATION

WILEY Transboundary and Emerging Diseases

Presence of atypical porcine pestivirus (APPV) in Brazilian pigs

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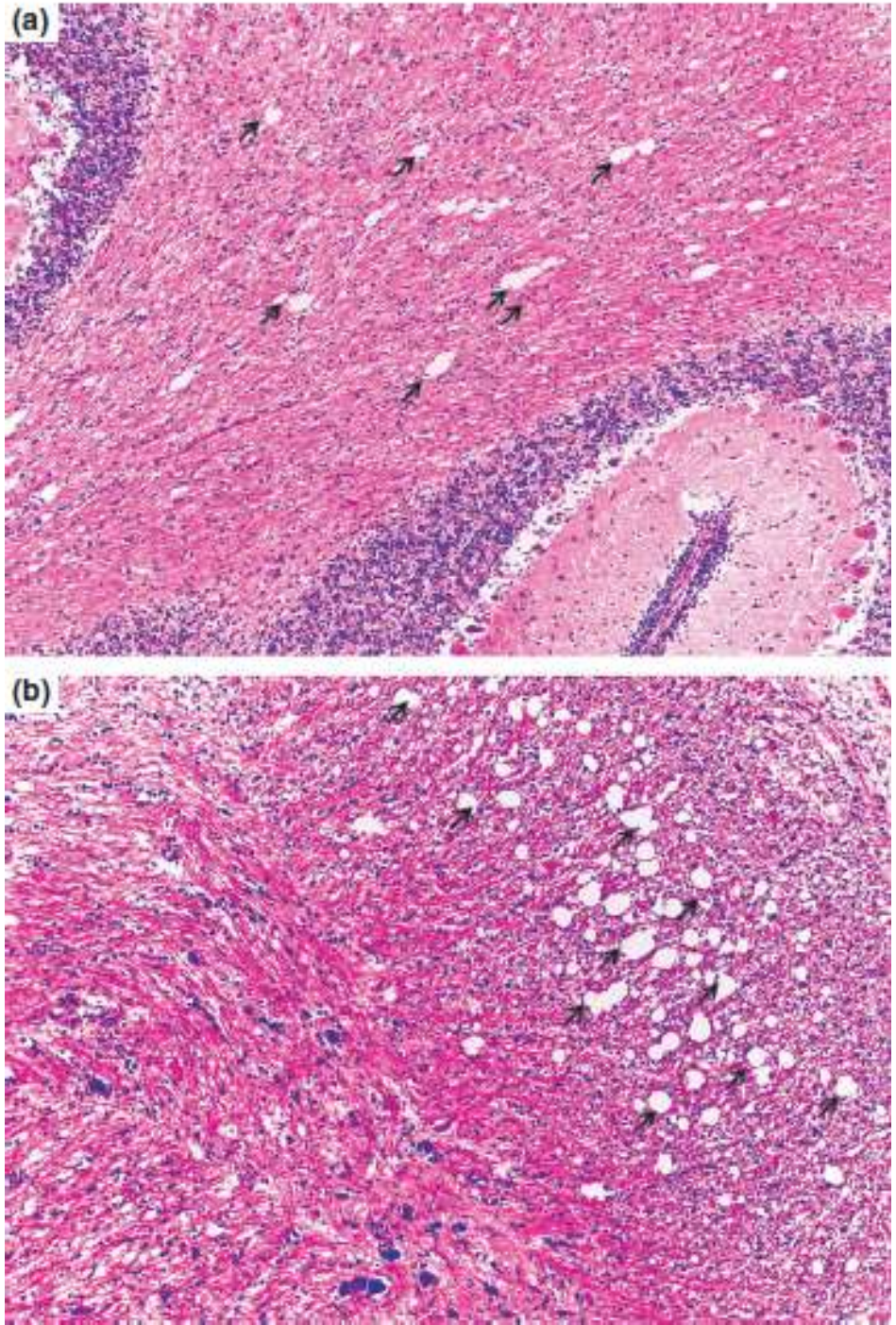
Summary

Recently, a putative new pestivirus species, provisionally named as Atypical Porcine Pestivirus (APPV), was associated with the congenital tremor in piglets in North America and consequently in Europe and Asia. The present research aimed to describe the detection and characterization of APPV employing NS5B gene partial sequencing, gross pathology and histologic examination of piglets displaying congenital tremor from two different farms of Southern Brazil. No gross lesions were observed, and the histological findings revealed moderate vacuolization of the white

- Visualização histológica do sistema nervoso central em um leitão de dez dias de idade apresentando tremor congênito. (a) Substância branca cerebelar e (b) Substância branca do tronco cerebral



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RAPID COMMUNICATION

WILEY

Detection of atypical porcine pestivirus in Brazil in the central nervous system of suckling piglets with congenital tremor

I. R. H. Gatto[1] | K. Harmon[2] | L. Bradner[2] | P. Silva[3] | D. C. L. Linhares[2] | P. H. Arruda[4] | L. G. de Oliveira[3] | B. L. Arruda[2]

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Summary

Atypical porcine pestivirus (APPV) has been detected in piglets with congenital tremor (CT) from three different continents including North America, Europe and Asia. Thirteen piglets from four farms in two different states in Brazil with CT were sampled. Viral RNA was detected by quantitative real-time PCR in the cerebellum or cerebellum and spinal cord in the 100% of the piglets with CT, and APPV was not detected in any tissue sample from clinically non-affected piglets with the exception of the cerebellum of one piglet from Farm A. Piglets with CT had an odds ratio of 99.0 (95% CI 3.4, 2823.8; $p = .0072$) compared to piglets without CT to test positive for APPV by qRT-PCR. A subset of positive samples was selected for sequencing of the NS3 gene. Phylogenetic analysis revealed that Brazilian sequences of the NS3 formed an independent cluster and had the highest sequence identity with a sequence from the United States. This is the first identification of APPV infection in piglets with CT in South America.

KEYWORDS
atypical porcine pestivirus, Brazil, congenital tremor

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DOI: 10.1111/tbed.12807

RAPID COMMUNICATION

WILEY

Viruses associated with congenital tremor and high lethality in piglets

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Summary

The recently described atypical porcine pestivirus (APPV) has been associated with congenital tremor (CT) type A-II in piglets in different countries. Another important neurological pathogen of pigs is porcine teschovirus (PTV), which has been associated with non-suppurative encephalomyelitis in pigs with severe or mild neurological disorders. There have been no reports of APPV and/or PTV coinfection associated with CT or encephalomyelitis in Brazilian pig herds. The aim of this study was to describe the pathological and molecular findings associated with simultaneous infection of APPV and PTV in piglets with clinical manifestations of CT that were derived from a herd with high rates of CT-associated lethality. In 2017, three piglets from the same litter with CT died spontaneously. The principal pathological alterations in all piglets were secondary demyelination and hypomyelination at the cerebellum, brainstem and spinal cord confirmed by histopathology and luxol fast blue–cresyl violet stain. Additional significant pathological findings included multifocal neuronal necrosis, neuronophagia and gliosis found in the cerebral cortex and spinal cord of

Congenital Tremor

Tremor congênito Type A II

XVIII Encontro Regional
Abraves PR 2024

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