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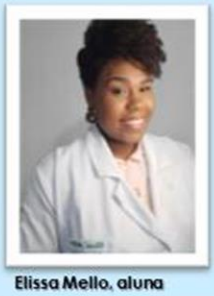

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Alessandra Choqueta de Toledo Arruda

Professora adjunta no Departamento de Fisioterapia da Universidade Federal do Rio de Janeiro (UFRJ) e coordenadora do Laboratório de Investigação em Avaliação e Reabilitação Pulmonar (LiRP/UFRJ). Possui graduação em Fisioterapia pela Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), fez aprimoramento em Terapia Intensiva pela Universidade Estadual de Campinas (UNICAMP), mestrado em Fisiopatologia Experimental pela Faculdade de Medicina da Universidade de São Paulo (USP) (2005) e doutorado em Ciências Médicas pela USP (2009) ambos apoiados pela FAPESP. Trabalhou como Professora no Departamento de Fisioterapia da UNESP (2012) período no qual realizou estágio científico junto ao Research Group for Pulmonary Rehabilitation na KU Leuven (Bélgica). Realizou pós-doutorado pelo Departamento de Clínica Médica da USP (2014) e no Laboratório de Ciências do Exercício da Universidade Federal Fluminense (2018) sob supervisão do Prof. Antônio Claúdio Lucas da Nobrega. Participa do corpo de docentes permanentes do Programa de Pós-graduação em Ciências Cardiovasculares da UFF. Recebeu vários prêmios nacionais e internacionais. Tem experiência clínica na área de Fisioterapia, com ênfase em Cardiorrespiratória e Terapia Intensiva. Áreas de interesse e atuação científicas são: Avaliação e Intervenção em Fisioterapia Cardiorrespiratória, Reabilitação Pulmonar, Fisiologia e Fisiopatologia cardiorrespiratória e do Exercício e Imunologia do exercício.

Caroline Fernandes dos Santos Bottino

Possui graduação em Ciências Biológicas (Licenciatura e Bacharelado/UERJ), Mestrado em Morfologia (UERJ), Doutorado em Biologia Humana e Experimental (UERJ), com período sandwich na The University of Iowa (USA), Especialização em A Moderna Educação (PUCRS) e em Educação Transformadora (PUCRS). Atualmente é Professora Associada I de Neurociências e Neurobiologia da Universidade Federal Fluminense (UFF)/ Instituto de Saúde de Nova Friburgo e professora permanente do Programa de Pós-Graduação em Ciências Cardiovasculares (UFF). Desenvolve trabalhos no eixo ensino-pesquisa-extensão, sendo líder do grupo de pesquisa NEMENUTH - Núcleo de Estudos em Metabolismo Nutrição e Histopatologia (UFF), vice-líder do EDU-INOVA - Núcleo de Estudos em Educação e Inovação (UFF) e membro do PROIAC - Programa de Inovação e Assessoria Curricular (UFF). Atua nas seguintes áreas: difusão da ciência, métodos ativos de ensino e aprendizagem, tecnologias digitais na educação, promoção da saúde e doenças cardiometabólicas.

Dalmo Valério Machado de Lima

Graduação em Enfermagem e Obstetrícia pela Universidade Federal Fluminense (1995), mestrado em Enfermagem pela Universidade Federal do Estado do Rio de Janeiro (2002) e, doutorado em Enfermagem na Saúde do Adulto (2009) pela Universidade de São Paulo, onde desenvolveu pesquisa relacionada à Enfermagem Baseada em Evidências, em especial, a revisão sistemática de literatura. Professor Associado da Universidade Federal Fluminense, Editor chefe do Online Brazilian Journal of Nursing (2011-2019), Pesquisador / orientador do Programa de Pós Graduação em Ciências Cardiovasculares (UFF), Mestrado Profissional em Enfermagem Assistencial (UFF) e Programa de Pós-Graduação em Enfermagem (UNIRIO). Líder do Núcleo de Ensino, Pesquisa e Extensão em Cardiointensivismo Baseado em Evidências e Gestão de Informação e Conhecimento em Saúde, certificado pela instituição. Membro do Conselho Deliberativo da Associação Brasileira de Editores Científicos (ABEC) (2014-2018). Membro Relator do Comitê de Ética em Pesquisa da Faculdade de Medicina (UFF). Tem experiência na área de Enfermagem do adulto e idoso, terapia intensiva, estatística, metodologia de pesquisa e bibliometria.

Eliete Dalla Corte Frantz

Professora Adjunta do Departamento de Morfologia da Universidade Federal Fluminense (UFF). Jovem Cientista do Nosso Estado (JCNE /FAPERJ /2022). Docente Permanente do Programa de Pós-Graduação em Ciências Cardiovasculares e do Programa de Pós-Graduação em Ciências Biomédicas da UFF. Possui graduação em Farmácia pela Universidade Regional do Noroeste do Estado do Rio Grande do Sul (UNIJUÍ - 2002). Mestre (2011) e Doutora (2014) em Ciências - Biologia Humana e Experimental pela Universidade do Estado do Rio de Janeiro (UERJ), orientada pelo Prof. Dr. Carlos Alberto Mandarim de Lacerda no Laboratório de Morfometria, Metabolismo e Doença Cardiovascular (LMMC). Foi professora substituta no Departamento de Anatomia pela Universidade do Estado do Rio de Janeiro (2011 - 2012). Pós-doutora (2014 - 2019) no Laboratório de Ciências do Exercício (LACE), sob a supervisão do Prof. Dr. Antonio Claudio Lucas da Nóbrega. Tem experiência em Farmacologia, Controle de Qualidade e Farmácia Comercial. Atua na área de Anatomia Humana e Morfologia, com ênfase em estereologia e biologia molecular direcionada aos seguintes temas: farmacologia, síndrome metabólica, sistema renina-angiotensina, nutrição experimental, exercício, resistência à insulina e doença hepática gordurosa não alcoólica.

Eliza Prodel Coelho

Possui graduação em Licenciatura Plena em Educação Física pela Universidade Federal de Juiz de Fora (2005). Especialização em fisiologia do exercício e prescrição de atividade física para grupos especiais pela Universidade Estácio de Sá Juiz de Fora (2007). Mestre em biodinâmica do movimento humano pela Universidade Federal de Juiz de Fora (2012). Doutora em ciências cardiovasculares pelo programa de pós graduação em ciências cardiovasculares da Universidade Federal Fluminense, com período de doutorado sanduíche na School of Sport, Exercise and Rehabilitaion Science na University of Birmingham. Atualmente desenvolve pesquisa como pós-doutoranda em colaboração com o Laboratório de Ciências do Exercício da Universidade Federal Fluminense.

Gabriel Dias Rodrigues

Possui Doutorado em Ciências Biomédicas (Fisiologia) - Universidade Federal Fluminense (UFF) (03/2015-07/2018) com período Sanduíche (bolsista CAPES/PDSE) na Universidade de Milão (Itália) e graduação em Educação Física - UFF (03/2010-03/2014). Atualmente é Pesquisador na Universidade de Milão - ITA, docente e orientador de mestrado e doutorado nos Programas de Pós-graduação Stricto Sensu em Ciências Cardiovasculares e Neurologia/Neurociências do Hospital Universitário Antônio Pedro (HUAP) da UFF. Possui experiência na área de Ensino, Pesquisa e Extensão em Educação Física, Fisiologia Cardiovascular, Respiratória e do Exercício. Atuando principalmente nos seguintes temas: envelhecimento, populações clínicas, controle neural da circulação, controle cerebrovascular, treinamento dos músculos respiratórios, treinamento aeróbico, hipóxia e estresse térmico.

Nadia Alice Vieira da Motta

Atualmente é pós-doutoranda no Laboratório de Farmacologia Experimental da Universidade Federal Fluminense (UFF) e docente permanente do Programa de Pós-graduação em Ciências Cardiovasculares (PPGCCV-UFF). Possui graduação em Farmácia (2007) e Habilitação em Análises Clínicas (2008) pela Universidade do Grande Rio. Mestrado (2011) e Doutorado (2015) em Ciências Biomédicas (PPGCCV-UFF), ambos apoiados pelo CNPq e CAPES. Desenvolve seus projetos de pesquisa no Laboratório de Farmacologia Experimental (LAFE - UFF), tendo experiência no estudo dos mecanismos fisiopatológicos envolvidos no desenvolvimento da aterosclerose e de doenças cardiometabólicas com ênfase na avaliação da reatividade vascular e agregação plaquetária em modelos experimentais. Avalia os mecanismos moleculares envolvidos nos efeitos farmacológicos de compostos bioativos com atividades antiplaquetária, hipolipemiante, vasodilatadora, anti-inflamatória e antioxidante. Avalia "in vitro" e "in vivo" o papel das vias inflamatórias, pró-trombóticas e oxidativas no processo de instalação da doença cardiovascular, bem como o efeito farmacológico de compostos e fármacos cardioativos, buscando contribuir para desenvolvimento de terapias mais eficazes para o tratamento destas doenças.

Natália Galito Rocha Ayres

Possui graduação em Biomedicina pela Universidade Federal Fluminense. É mestre e doutora em Ciências Cardiovasculares pela Universidade Federal Fluminense. Durante o período do doutorado, realizou doutorado sanduíche na Universidade do Colorado (Boulder, Colorado, EUA) sob orientação do professor Dr. Christopher A. DeSouza. Fez pós-doutorado no Laboratório de Ciências do Exercício, da Universidade Federal Fluminense. Atualmente, é professora adjunta do Departamento de Fisiologia e Farmacologia e membro permanente da Pós-Graduação em Ciências Biomédicas (Fisiologia e Farmacologia) e da Pós-Graduação em Ciências Cardiovasculares, da Universidade Federal Fluminense. Foi vice-coordenadora do Programa de Pós-Graduação em Ciências Biomédicas (Fisiologia e Farmacologia, 2018-2022). Atualmente, é Jovem Cientista do Nosso Estado (2016-2019 / 2019-2022) pela FAPERJ, bolsista de Produtividade pelo CNPq (2022-2025) e revisora de periódicos nacionais e internacionais. Desenvolve pesquisas na grande área de Fisiologia Cardiovascular, Cardiometabologia, Biologia Molecular e Celular, com foco na avaliação de células progenitoras endoteliais e de microvesículas endoteliais, além de mecanismos inflamatórios e de estresse oxidativo relacionados à função endotelial de indivíduos sob risco cardiometabólico.

Renata Frauches Medeiros Coimbra

Professora adjunta no departamento de Nutrição e Dietética (MND) da Faculdade de Nutrição Emília de Jesus Ferreiro, da Universidade Federal Fluminense (UFF), professora do Programa de Pós-Graduação em Ciências da Nutrição (UFF), professora no Programa de Pós-Graduação em Ciências Cardiovasculares (UFF) e professora convidada da Residência Multiprofissional do Hospital Universitário Antônio Pedro (HUAP). Pós-doutorado em Ciências Cardiovasculares com ênfase em fisiologia do exercício, no Laboratório de Ciências do Exercício (LACE) sob

coordenação do professor Antonio Claudio Lucas da Nóbrega. Doutora em Ciências Cardiovasculares (2014), graduada em Nutrição pela UFF (2008). É coordenadora da equipe de Nutrição do centro de atendimento à saúde do idoso e do cuidador (CASIC/UFF). É membro do grupo de pesquisa do Laboratório de Ciências do Exercício (LACE). Tem experiência na área de nutrição, com ênfase em Nutrição e experimentação animal, nutrição clínica e metabolismo de nutrientes, e na área de fisiologia, com ênfase em fisiologia cardiovascular e função endotelial.

Coordenadora das Comissões Organizadora e Científica

Christianne Brêtas Vieira Scaramello

Possui mestrado (2001) e doutorado (2004) em Ciências (Farmacologia Terapêutica e Experimental) pela Universidade Federal do Rio de Janeiro. Tem experiência na área de Farmacologia, tanto básica como clínica, Farmacocinética, Farmacovigilância e Plasticidade do Desenvolvimento. Recentemente iniciou estudos abrangendo a aplicação de diferentes estratégias de Reposicionamento de fármacos com abordagem centrada em doenças. Atuou como professora de Farmacologia Básica e Clínica nos cursos de Medicina e Farmácia em conhecidas instituições de ensino superior como Universidade Estácio de Sá, Universidade do Grande Rio (UNIGRANRIO) e Fundação Técnico Educacional Souza Marques, antes do ingresso na Universidade Federal Fluminense, onde atualmente é professora associada III. Coordenou a implantação do Centro de Informações sobre Medicamentos da UNIGRANRIO em 2007. Líder do Núcleo de Pesquisas em Plasticidade, Epidemiologia e Estudos in Silico (NUPPEESI), tem experiência na orientação de alunos de iniciação científica e tecnológica - inclusive ensino médio - mestrado e doutorado, bem como na supervisão de pesquisadores pós-doutorais, com produção científica compatível. É vice coordenadora do Programa de Pós-Graduação em Ciências Cardiovasculares desde 2013 e faz parte do comitê gestor do Setor de Apoio Institucional a Projetos do Biomédico. Além de revisora de periódicos, é editora associada da área multidisciplinar do periódico International Journal of Cardiovascular Sciences. É idealizadora e coordenadora do projeto de divulgação científica Science Rocks UFF, que completou dois anos de existência em abril de 2022, dispondo de um perfil no instagram e um canal no youtube. Desde 2022 também coordena o projeto de tutoria associado ao curso de graduação em Medicina da Universidade Federal Fluminense campus Niterói.

PROGRAMAÇÃO

06 DE DEZEMBRO DE 2022:

- ✓ **14:00 às 14:40 – Abertura e Palestra I: "The role of cardiopulmonary exercise assessment in connective tissue disorders."**

Speaker - Dr. Marco Vicenzi (University of Milan): Dr. Vicenzi is an assistant professor at the University of Milan since December 2015 and is actively involved in the scientific program at the Cardiovascular Division. He is the head of the Dyspnea Lab and promoter of the clinical and research activity on the pulmonary circulation and right ventricle. His interest is addressed to exploring pathophysiological bases of pulmonary vascular disease, right ventricular dysfunction, and ventilatory mechanisms. He is the contact person for the pulmonary vascular disease and the right heart catheterization program at Policlinic of Milan Hospital.

- ✓ **14:40 às 15:10 – Palestra II: "The interplay between autonomic nervous system and inflammation: underlying mechanisms and potential countermeasures."**

Speaker - Drª. Chiara Bellocchi (University of Milan): Drª. Bellocchi is an MD/Ph.D., a specialist in clinical immunology and allergology. Her research is focused on systemic autoimmune diseases (especially systemic sclerosis and systemic lupus erythematosus). She is interested in the study of the biomolecular profile of autoimmune diseases (at a gene expression, and protein level but also in the "omics" such as microbiomes and metabolomics). She also studies the autonomic nervous system and its profile in systemic autoimmune diseases.

Chair: Dr. Gabriel Dias Rodrigues (Fluminense Federal University/ University of Milan): Dr. Rodrigues is a professor of the Post-Graduation Program of Cardiovascular Science at Fluminense Federal University and an associated researcher at the University of Milan. His research is focused on the neural control of circulation in clinical populations and environmental conditions. Also, he has interesting in potential non-pharmacological approaches to counteract dysautonomic and cardiopulmonary disorders.

✓ **15:30 às 16:15 – Apresentações orais - Sessão I**

Identificação do trabalho	Relator	Autores	Título do trabalho
R001	Juliana Arruda de Souza Monnerat	Monnerat, J.A.S.; Lucchetti, B.B.; Teixeira, G.F.; Mentzinger, J.; Martins, M.A.C.; Velasco, L.L.; Rocha, H.N.M.; Sodré, F.A.; Almeida, V.M.A.; Lima, L.R.; Cytrangulo, M.S.; Silva, V.C.; Nóbrega, A.C.L.; Rocha, N.G.; Rocha, G.S.; Medeiros R.F	SEXUAL DIMORPHISM AND AEROBIC TRAINING IN STRESS-INDUCED METABOLIC PROGRAMMING.
R002	Leticia Monteiro F. Cardoso	Cardoso, L.M.F.; Monnerat, J.A.S.; Pereira, A.D.; Andrade, J.L.; Martins, M.A.C.; Barroso, S.G.; Gregório, B.M.; Fernandes-Santos, C.; Rocha, G.S.	BLOOD GLUCOSE AND LIVER FUNCTION MARKERS IN RATS SUBMITTED TO EARLY WEEANING IS INFLUENCED BY SEX AND COCOA SUPPLEMENTATION.
R003	Luis Felipe da Silva Magalhães	Magalhães, L.F.S.; Villacorta, H.; Sant Anna, G.C.; Andrade, J.C.A.B.	IMPACT OF COVID-19 INFECTION IN A POPULATION WITH HEART FAILURE.

✓ ***COMISSÃO AVALIADORA***

- **Dalmo Machado**
- **Gabriel Dias**
- **Nádia Motta**

✓ **16:15 às 17:00 – Apresentações orais - Sessão II**

Identificação do trabalho	Relator	Autores	Título do trabalho
R004	Thais Dillinger Conway Santanna	Santanna, T.D.C; Mello, E.S.F.; Oliveira, A.L.M.B; Soares, P.P.S.; Rodrigues, G.D.	EFFECTS OF INSPIRATORY MUSCLE TRAINING ON CARDIAC AUTONOMIC MODULATION AND FUNCTIONAL CAPACITY IN POST-COVID-19 PATIENTS.
R005	Roberto de Souza	Souza, R.; Rocha, M.H.N., Divino, B.M.B.A., Ayres, N.G.R., Nobrega, A.C.L., Prodel, E.	STRESS RESPONSE IN PATIENTS RECOVERED COVID-19.
R006	Michelli Souza C. Gonçalves	Gonçalves, M.S.C.; Ribeiro, M.; Fanton, S.; Batista, B.G.; Regis, B.; Mafra, D.; Cardozo, L.F.M.F.	EFFECTS OF SULFORAPHANE SUPPLEMENTATION ON THE LIPID PROFILE OF PATIENTS WITH CHRONIC KIDNEY DISEASE ON HEMODIALYSIS.

✓ ***COMISSÃO AVALIADORA***

- **Caroline Fernandes**
- **Natália Galito**
- **Renata Frauches**

PROGRAMAÇÃO

07 DE DEZEMBRO DE 2022

- ✓ **17:00 às 17:30 – Apresentação do Programa de Tutoria MedUff com a doutoranda Karyne Pollo**

Graduação em Biomedicina com enfase em Análises clinicas, pela Universidade Federal Fluminense (UFF) (2017). Monitora de Química nos anos 2014-2015-2016 para alunos de Biomedicina pela Universidade Federal Fluminense com participação no Laboratório De Química Experimental. Estágio obrigatório realizado no Hospital Municipal Raul Sertã em Nova Friburgo - RJ (2016). Mestrado pelo Programa de Pós-graduação em Ciências Cardiovasculares pela Universidade Federal Fluminense (2018-2020). Projeto de ensino através da produção de videoaulas para atividades acadêmicas não-presenciais para formação de pesquisador, cujo objetivo desta proposta é produzir videoaulas com conteúdo compatível com algumas disciplinas do Programa de Pós-Graduação em Ciências Cardiovasculares da UFF sob supervisão da Profª. Drª. Christianne Brêtas (2019-2021). Tutora da Disciplina de Seminários em Pesquisa Biomédica sob supervisão da Profª. Drª. Christianne Brêtas para alunos de pós-graduação (2021). Doutoranda no Programa de Pós-Graduação em Ciências Cardiovasculares voltado para farmacologia in silíco através da aplicação de diferentes estratégias de Reposicionamento de fármacos com abordagem centrada nas doenças. Atualmente é representante discente do Programa de Pós-Graduação em Ciências Cardiovasculares e Tutora de graduação para alunos de Medicina (1º ao 8º período) da Universidade Federal Fluminense (2022). Tem experiência em programação metabólica e cardiovascular, Hormônio Leptina e seus desfechos estruturais e funcionais sobre o sistema cardiovascular, medicina de gênero e reposicionamento de fármacos in silico. Acesso ao Curriculo Lattes: http://lattes.cnpq.br/9598554509211052

- ✓ **17:30 às 18:40 – Encontro de egressos**

Drª. Fernanda Pereira Toste Izidoro

Possui graduação em Educação Física pela Universidade Federal Rural do Rio de Janeiro (2004), Docente do Instituto Federal do Rio de Janeiro desde 2014, professora por 8 anos da Secretaria de educação do Estado do Rio de Janeiro (SEEDUC), com mestrado em ciências médicas pela Universidade do Estado do Rio de Janeiro (Fisclinex- 2008), e doutorado em Cardiologia pela Universidade Federal Fluminense (2012). Atualmente é docente do Instituto Federal de Educação, Ciência e Tecnologia do Rio de Janeiro.

Drª. Sabrina Bernardez Pereira

Possui graduação em Medicina pela Universidade Federal Fluminense. Pós graduação em cardiologia pelo Instituto Nacional de Cardiologia- RJ. Fellow em Insuficiência Cardíaca pelo Hospital Procardíaco. Mestre em Ciências Cardiovasculares pela Universidade Federal Fluminense. Título de Especialista em Cardiologia pela Associação Médica Brasileira/Sociedade Brasileira de Cardiologia. Doutorado em Ciências Cardiovasculares pela Universidade Federal Fluminense. Especialista em melhoria pelo Institute of Healthcare Improvement (IHI). Green Belt em VBHC pelo VBHC Center Europe (2022). Médica Pesquisadora do HCor. Coordenadora dos Protocolos Institucionais e Escritório de Valor do Hospital do Coração-SP. Atualmente atua como Gerente de Práticas Médicas do Hospital do Coração (HCor) e atualmente atua como médica do Departamento da Economia da Saúde do Hospital Israelita Albert Einstein.

Drª. Thais de Rezende Bessa Guerra

Possui Mestrado e Doutorado pela Universidade Federal Fluminense (UFF). Fundadora do Instituto de Nutrição do Cérebro & Coração (INCCOR). Direção Científica do Hospital Municipal Souza Aguiar; Membro da Society for the Advancement of Kinanthropometry (ISAK). Atua como nutricionista na área clínica, ensino e pesquisa na linha de investigação da psiquiatria nutricional e comorbidades cardiovasculares associadas. Possui experiência com orientações de trabalhos acadêmicos, possui prêmios e publicações.

✓ **19:00 às 19:45 – Apresentações orais - Sessão III**

Identificação do trabalho	Relator	Autores	Título do trabalho
R007	Aretha Pereira de Oliveira	Oliveira, A.P.; Machado, D.	ASSOCIATION BETWEEN THE GLYCEMIC BEHAVIOR AFTER BED BATH AND SOURCE OF SEPSIS, SEX AND AGE OF CRITICAL CARE PATIENTS.
R008	Lin Shr Uen	Uen, L.S.; Fernandes-Santos, C.	PROFESSOR'S AND STUDENT'S MENTAL HEALTH DURING THE COVID-19 PANDEMIC IN A FEDERAL PUBLIC UNIVERSITY.
R009	Thaís Carolina Guiland Schimidt	Schimidt, T.C.G.; Souza da Silva, A.; Moura, R.S.; Resende, A.C.; Ognibene, D.T.; Fernandes-Santos, C.	EFFECTS OF AÇAÍ EXTRACT (*Euterpe Oleracea Mart.)* ON THE PLACENTA OF WISTAR FETUS IN MODEL OF PRE-ECLAMPSIA INDUCED BY L-NAME.

✓ ***COMISSÃO AVALIADORA***

- **Alessandra Choqueta**
- **Eliza Prodel**
- **Eliete Frantz**

✓ **19:45 às 20:00 – Encerramento**

RESUMOS

DOS

TRABALHOS

CIENTÍFICOS

R001

SEXUAL DIMORPHISM AND AEROBIC TRAINING IN STRESS-INDUCED METABOLIC PROGRAMMING

MONNERAT, J.A.S.[1]; LUCCHETTI, B.B.[1]; TEIXEIRA, G.F.[2]; MENTZINGER, J.[1]; MARTINS, M.A.C.[3]; VELASCO, L.L.[2]; ROCHA, H.N.M.[2]; SODRÉ, F.A.[4]; ALMEIDA, V.M.A.[5]; LIMA, L.R.[5]; CYTRANGULO, M.S.[5]; SILVA, V.C.[5]; NÓBREGA, A.C.L.[1,2,5]; ROCHA, N.G.[1,2,5]; ROCHA, G.S.[1]; MEDEIROS R.F.[1,3,4]

1. **Cardiovascular Science Postgraduate Program – Federal Fluminense University, Niterói**
2. **Biomedical Sciences Postgraduate Program – Federal Fluminense University, Niterói**
3. **Nutrition Science Postgraduate Program – Federal Fluminense University, Niterói**
4. **College of Nutrition Emília de Jesus Ferreiro – Federal Fluminense University, Niterói**
5. **Biomedical Institute – Federal Fluminense University, Niterói**
6.

INTRODUCTION: Constant exposure to a stressful environment during pregnancy has a negative impact on fetal development and health, and can trigger deleterious effects on the cardiovascular system[1]. The use of non-pharmacological therapeutic strategies, such as aerobic training, is expected to minimize the damage caused by stress through its cardioprotective effect[2]. **OBJECTIVES:** To evaluate the effects of aerobic training on vascular cardiometabolic parameters in the offspring of Wistar rats submitted to variable chronic stress. **METHODS:** The offspring were divided into 4 groups (n=8/group): a) Control (C) – offspring of mothers that were not subjected to stress; b) Control Training (C+T) – offspring of mothers that were not subjected to stress and underwent aerobic training; c) Stress (ECV) – offspring of mothers who were subjected to stress; d) Stress Training (ECV+T) – offspring of mothers who were subjected to stress and perform aerobic training. All groups received commercial food and water on free demand during the protocol. Treadmill training was started at 60 days of age, for 2 months, 5 times/week, moderate intensity, 30 minutes/day. Body composition by Dual-energy X-ray Absorptiometry (DXA) were performed in the last week of the protocol. At 120 days of age, the animals were anesthetized and euthanized. Blood was collected for biochemical and and antioxidant analysis. Results were expressed as mean±standard deviation and evaluated for normality. One-way or two-way ANOVA with Tukey's post-test was used, and considered significant when $p<0.05$. GraphPad Prism 8.0 software was used to perform statistical analysis. **RESULTS:** In relation to female DXA (n=5/group), ECV+T had lower body mass ($p=0.0003$) and lower bone mineral content ($p=0.0060$) vs. C+T, while C+T was higher when compared to C ($p=0.0073$). In males (n=5/group), ECV and ECV+T reduced body mass, body fat and bone mineral content when compared to their respective controls ($p<0.0001$). In biochemical measurements (n=7/group), total cholesterol in males was higher in C+T vs. C and ECV+T ($p=0.0010$). HDL was lower in ECV males vs. ECV females ($p=0.0040$). Triglycerides in females were higher in ECV vs. C and C+T ($p<0.0001$) and ECV+T vs. C+T ($p=0.0022$). In the antioxidant analyses (n=7/group), the catalase enzyme of females was higher in ECV+T vs. C+T ($p=0.0370$) and in ECV+T vs. ECV+T males ($p=0.0412$). Superoxide dismutase enzyme from females was higher in ECV vs. their respective controls ($p<0.0001$) and in the ECV vs. ECV+T of males ($p=0.0087$). **DISCUSSION/CONCLUSION:** At the moment, it is difficult to conclude the effect of the variables studied due to the lack of complementary analyses, but according to the findings, we can observe that stress had a negative impact on the animals, such as on bone mineral content in both sexes and increasing triglycerides in the females. This way, among the analyzed results, it is possible to observe that gestational stress was able to negatively modulate metabolic parameters in the offspring, with specific sexual differences and interferences of aerobic training.

FINANCIAL SUPPORT: CAPES, FAPERJ.

ETHICS COMITEE APPROVAL: CEUA/UFF (nº5868211118).

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R002

BLOOD GLUCOSE AND LIVER FUNCTION MARKERS IN RATS SUBMITTED TO EARLY WEEANING IS INFLUENCED BY SEX AND COCOA SUPPLEMENTATION

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INTRODUCTION: Early weaning modulates body metabolism leading to detrimental effects on cardiovascular health[1,2]. Cocoa has beneficial effects on health due to its nutrient composition, however, it is still unknown the mechanisms underlying cocoa beneficial effects on this insult[3]. **OBJECTIVE:** To evaluate the effect of cocoa powder supplementation and sex on blood glucose and liver function biomarkers in adult *Wistar* rats submitted to early weaning. **METHODS:** At birth, mothers and their puppies were allocated into 4 groups (n=4 mothers/group): a) Control (C); b) Control supplemented with cocoa (C+Co); c) Early weaning (EW) and; d) Early weaning supplemented with cocoa (EW+Co). Cocoa powder was administered mixed with rodent chow (10%). Male and female pups were isolated from their mothers at either day 21 (control) or 18 (EW) (n=12/group). At 3-mo-old (90 days), the animals were fasted for 6 hours, and tail peripheral blood glucose was measured. Then, blood was collected by cardiac puncture under anesthesia and the serum liver biomarkers aspartate aminotransferase (AST), alanine aminotransferase (ALT), and gamma-glutamyl transferase (GGT) were assessed. Data is shown as mean±SD and compared by one-way ANOVA or Kruskal-Wallis, and three-away ANOVA with Bonferroni post hoc test (GraphPad prism 8.0, $p \leq 0.05$). **RESULTS:** In male rats, there was a there was a significant increase in fasting glucose in the EW group compared to C ($p<0.0001$) and EW+Co ($p<0.0001$) groups. In addition, blood glucose decreased in C+Co group compared to C group ($p=0.027$), but the same was not observed in female rats. Regarding liver function, male rats showed higher AST levels in EW group compared to C group ($p=0.0098$). In the EW+Co group, AST was lower compared to the EW ($p=0.0039$). In females, ALT levels were significantly lower in the C+Co group compared to C group ($p=0.0006$). Blood glucose was influenced by sex, weaning, and cocoa ($p=0.0004$; three-way ANOVA). In liver function biomarkers, sex and weaning influenced AST ($p=0.0071$; three-way ANOVA), while ALT was influenced by sex, weaning, and cocoa ($p=0.0121$; three-way ANOVA). On the other hand, any independent factor impacted GGT levels ($p=0.9030$; three-way ANOVA). **CONCLUSIONS:** Present data suggest that cocoa powder supplementation prevents the deleterious effects of early weaning on blood glucose and liver function biomarkers, and is sex dependent.

FINANCIAL SUPPORT: FAPERJ, CNPq, CAPES.

ETHICS COMMITTEE APPROVAL: CEUA/UFF 1032/2018.

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R003

IMPACT OF COVID-19 INFECTION IN A POPULATION WITH HEART FAILURE

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INTRODUCTION: Heart failure (HF) is a public health problem that affects approximately 23 million people worldwide. In January 2020, the disease caused by Coronavirus 2019 (COVID-19) was declared by the World Health Organization as a public health emergency of international interest[1]. Despite existing knowledge, the scale of the global pandemic is distinct, as is its effects on the population. HF patients represent an important portion of the risk group for the development of severe forms and complications related to COVID-19[2] , [3]. **OBJECTIVES:** The aim of the present study is to evaluate the impact of COVID-19 in a population with HF. **METHODS:** This is a multicentric longitudinal observational record. Patients diagnosed with chronic HF with reduced ejection fraction (EF< 50% on last year's echocardiogram) registered at the clinic of one of the centers participating in the study, of both genders, aged ≥ 18 years, will be included. Regional differences in the characteristics and outcomes (development of severe forms, hospitalizations and deaths) of COVID-19 infection in the population with chronic HF in Brazil will be described and analyzed. Enrolled patients will be contacted again at 6 and 12 months after enrollment for follow-up data collection. In these two moments, clinical information and medications in use will be collected again, and the occurrence of death and hospitalization will be evaluated. Clinical outcomes will be compared between patients who had and who did not have COVID-19. **RESULTS:** The study is in both the inclusion phase and the ongoing segment. We estimated 2000 patients included at the end of the inclusion phase. Data will be analyzed at a significance level of 5%. The chi- squared test will be applied, and survival curves constructed using the Kaplan-Meier method, to compare patients with and without a history of COVID-19. The HUAP has already included 50 patients, of which 31 have already started the segment phase and 14 have completed 12 months of follow-up. Of the patients in the segment phase, 32% already had COVID 19, and 40% of them sought emergency medical care for cardiovascular causes, with no reports of hospitalization or death. In the group that did not get sick with COVID 19, 28.5% needed emergency care for cardiovascular causes, and one case required hospitalization with subsequent death. **DISCUSSION/CONCLUSIONS:** We do not yet have national data, and the HUAP sample is too small to infer statements. Although the ordinal difference is small, there is a percentage margin that suggests a tendency for patients with HF and with a previous history of COVID 19 to need more assistance in the first year after the viral infection. We believe that this difference results not only from acute complications of the infection, but also from disturbances in organic functioning of uncertain duration. If this trend is confirmed with national data, it is to be expected that hospitalization and death rates may be higher in the group that has already manifested COVID 19.

FINANCIAL SUPPORT: There is no external funding for this research.

ETHICS COMITEE APPROVAL: 4.534.966

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R004

EFFECTS OF INSPIRATORY MUSCLE TRAINING ON CARDIAC AUTONOMIC MODULATION AND FUNCTIONAL CAPACITY IN POST-COVID-19 PATIENTS

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INTRODUCTION: COVID-19 is an infectious disease caused by SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2), characterized by a systemic inflammatory process[1] with a notable structural damage in the lungs (eg., reduced volumes and capacities[2]) and in the heart (eg., heart attack, myocarditis and cardiac dysautonomia[3]). Recent studies have shown intriguing effects of inspiratory muscle training (IMT), such as increased inspiratory muscle strength, improved physical capacity and cardiovascular autonomic control[4.] However, whether the effects of IMT on the rehabilitation of patients infected by COVID-19 considering respiratory dysfunction, cardiac dysautonomia and functional capacity are unknown. **OBJECTIVES:** To evaluate the effects of inspiratory muscle training on inspiratory muscle strength, functional and pulmonary capacity and autonomic modulation in patients affected by COVID-19. **METHODS:** Patients of both sexes who did not participate in any post-COVID rehabilitation program will be engaged (over 18 years old) in this investigation. They will be recruited from the Antonio Pedro Hospital (HUAP) and from community via social media outreach. Participants will be allocated in experimental group (whose IMT load will be set at 50%MIP) or placebo group (whose IMT load will be set at 15%MIP). The initial and final evaluations will be carried out in the laboratory and the interventions at home. The duration of the IMT will be six weeks. **RESULTS:** Preliminary results are expressed in mean (±) and standard deviation (DP). Data from the initial assessment (before the intervention) of 7 volunteers showed PIM: 94 cm H2O± 24; to systolic and diastolic blood pressure (BP) in the 6-minute walk test, initial SBP 118 mmHg ±12,7 and final SBP of 143 mmHg ±10. The initial DBP 76 mmHg ±25, and the final DBP was 81 mmHg ±12. We believe that IMT will promote benefits in cardiac autonomic modulation, shifting the sympatho-vagal balance to a vagal predominance, and functional capacity, improving the walking distance in the six-minute walking test (6MWT). **DISCUSSION/CONCLUSIONS:** IMT generate benefits in inspiratory muscle strength and cardiac autonomic modulation in healthy individuals and in various pathologies, presenting itself as an important tool in cardiopulmonary rehabilitation programs.

ETHICS COMITEE APPOVAL: The project was approved by the Research Ethics Committee (REC) on December 9, 2021, CAAE: 49273321.4.0000.5243.

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R005

STRESS RESPONSE IN PATIENTS RECOVERED COVID-19

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INTRODUCTION: The new coronavirus (SARS-Cov2) and COVID-19 pandemic impacted humanity in multiple ways, when a respiratory infection has led to millions of deaths worldwide [1] . Therefore, a better understanding of the pathophysiological mechanisms of the long COVID-19 is fundamental to designing and implementing measures to mitigate related morbidity and mortality. **OBJECTIVE:** To investigate the stress response of the cardiovascular system in patients months after the recovery from COVID-19. **METHOD:** Heart rate (HR), blood pressure (BP), and cardiac output (CO) were measured at rest and during a cold pressure test (CPT) and dynamic hand-grip exercise in a control group (not exposed to the SARS-Cov2 infection) and a long COVID group (3 months after the recovery of the SARS-Cov2 infection). **RESULTS:** 27 participants were submitted to our protocol, the control group had six men (age 30±9 years, weight 84±18 kg and height 177±7 cm) and five women (age 25±3 years; weight 65± 6 kg and height 164±9 cm) and the Long Covid group had six men (age 30±7 years; weight 74±6 kg and height 173±7 cm) and tem women (age 2±9 years, weight 58±6 kg and height 162±7 cm) all participants were healthy and were not taking medication. Resting HR was similar between the groups (Control: 67±10 bpm; COVID: 69±10bpm) and increase similarly during CPT and handgrip exercise, systolic BP in the long COVID group is higher at rest (Control: 122±12 mmHg; COVID: 135±10 mmHg), but the increase during the CPT and handgrip was similar. The CO is increased at rest in the long COVID group (Control: 6.2±1,0 l/min; COVID: 7.0±1.0 l/m) but increased similarly during CPT and handgrip**. DISCUSSION:** The literature evidence suggests that post-COVID-19 manifestations affect 50-80% of symptomatic patients who recover from the infection [3-4]. Currently, knowledge about the pathophysiological mechanisms of prolonged symptoms after COVID-19 infection is still limited, and we have shown a possibility of increased resting blood pressure and cardiac output. Which is associated with the first signs of hypertension.

FINANCIAL SUPPORT: Own financial support.

ETHICS COMMITTEE APPROVAL: 4.991.313.

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R006

EFFECTS OF SULFORAPHANE SUPPLEMENTATION ON THE LIPID PROFILE OF PATIENTS WITH CHRONIC KIDNEY DISEASE ON HEMODIALYSIS

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INTRODUCTION: Patients with Chronic Kidney Disease (CKD) have cardiovascular diseases (CVD) as the main cause of death, and among the main risk factors for CVD in CKD, dyslipidemia is pointed out[1,2]. Dyslipidemia is characterized by high plasma levels of triglycerides (TG), high total cholesterol (TC), high low-density lipoprotein (LDL-C) and low high-density lipoprotein (HDL-C)[1,3]. In addition, renal dysfunction alters the level, composition, and quality of lipids, favoring atherogenic risk[2-4]. In this context, some non-pharmacological strategies have been proposed as adjuvant therapeutic alternatives to modulate dyslipidemia in CKD[1,2]. Given this scenario, sulforaphane (SFN), an isothiocyanate found in cruciferous vegetables, known for its antimicrobial, antioxidant and anti-inflammatory properties, may emerge as a new strategy to mitigate dyslipidemia in CKD [5,6]. Human and animal studies provide evidence that diets rich in cruciferous vegetables can modify the plasma lipid profile and reduce cardiovascular risk[7,8]. **OBJECTIVES:** To evaluate the effects of SFN on the lipid profile and ultra-sensitive C-reactive protein (hs-CRP) in patients with CKD on hemodialysis (HD). **METHODS:** This is a double-blind, randomized, placebo-controlled clinical trial with 32 patients on regular HD treatment for at least 6 months at Clínica Renal Vida, randomized into 2 groups: SFN (1 sachet/day of 2.5g, containing 1% sulforaphane extract) or placebo (1 sachet/day of corn starch, colored with chlorophyll) for 2 months. Blood was collected before and after supplementation, lipid profile, us-CRP and other routine biochemical parameters were analyzed using commercial kits (Bioclin), food intake was measured using a 24-hour recall, collected for 3 days, before and after supplementation. **RESULTS:** 28 patients completed the study: 12 in the SFN group (57.5 ± 14 years, 7 men, 25 ± 12.97 kg/m²) and 16 in the placebo group (57 ± 21.25 years, 10 men, 26.6 ± 5.5 kg/m²). The data obtained revealed that the intervention with SFN significantly increased plasma HDL levels (P=0.038). There were no differences in CT (P=0.676), LDL (P=0.728) and hs-CRP (P=0.542). There were no significant differences in the placebo group. **DISCUSSION/CONCLUSION:** Supplementation for 2 months with 2.5 g of SFN extract seems to be a good non-pharmacological strategy, capable of modulating the lipid profile in CKD, increasing plasma HDL-C levels in patients with CKD on HD.

FINANCIAL SUPPORT: Universal (CNPq-2018-2021), CNE (Faperj 2019-2022), PQ-1C (CNPq).

ETHICS COMITEE APROVAL: 39904520.8.0000.5243 and ClinicalTrials.gov (NCT NCT04608903).

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R007

ASSOCIATION BETWEEN THE GLYCEMIC BEHAVIOR AFTER BED BATH AND SOURCE OF SEPSIS, SEX AND AGE OF CRITICAL CARE PATIENTS

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INTRODUCTION: Sepsis is an important healthcare problem, defined as a life-threatening organ disfunction caused by a deregulated host response to an infection [1]. A common complication during sepsis course is the alteration of glycemic control, and hyperglycemia and increased glycemic variability are associated with increased mortality [2-4] . The outcomes of these patients often depend on critical interventions, and the admission to an Intensive Care Unit is required. Nursing team will be responsible to supply the basic human necessities, including hygiene and bath, and some studies have shown that both traditional bed bath, with water and soap, and bath with washcloths do not imply in hemodynamic instability [5-7] . However, there is a suggestion that bed bath can significantly decrease blood glucose [8]. **OBJECTIVES:** To compare the blood glucose of patients with sepsis in intensive care units before and after bed bath, and to associate the glycemic behavior after bed bath to source of sepsis (pulmonary vs nonpulmonary), sex and age (aged vs adult). METHODS: Preliminary data from a randomized clinical trial performed with 26 critical patients with sepsis consecutively recruited. Blood glucose was obtained by a small sample (0.2 cc) collected of invasive blood pressure catheter, five minutes before and five minutes after bed bath. Glycemic behavior was characterized as “decreased” or “no decreased”. Comparison of blood glucose before and after bed bath was performed by paired sample t-Test, and to associate the variables, it was performed Fisher’s Exact test. The significance level (α) was previously fixed at 0.05. **RESULTS:** The sample was composed by 15 women (57.69%). The mean age was 66±15 years, and 10 patients (38.46%) presented pulmonary sepsis. The difference between mean glycemia before bed bath (196±70 mg/dl) and after bed bath (179±77 mg/dl) was statistically significant (p < 0.001). After bed bath, 22 patients (84.62%) showed a decrease in blood glucose, with no case of hypoglycemia. There was no association between the glycemic behavior and source of sepsis (p = 0.504), sex (p = 0.574) or age (p = 0.205). **DISCUSSION:** It is remarkable that bed bath can impact on blood glucose, and it could be related to hemodynamic changes, higher glucose consumption caused by improved metabolism or mobilization. Identification of variables that could impact on glycemic behavior can upgrade healthcare, minimize negative outcomes, and decrease hospital costs. **CONCLUSION:** In our study, bed bath significantly reduced blood glucose of patients with sepsis. Despite of changes in biological dynamic caused by aging process, hormonal differences between men and women or inflammatory alterations caused by distinct sources of sepsis, there was no differences in glycemic changes related to sex, age or source of sepsis after bed bath.

FINANTIAL SUPPORT: This study is financed by FOPESQ.

ETHICS COMITEE APPROVAL: 4.418.759.

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R008

PROFESSOR'S AND STUDENT'S MENTAL HEALTH DURING THE COVID-19 PANDEMIC IN A FEDERAL PUBLIC UNIVERSITY

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INTRODUCTION: Health risk behaviors are the leading cause of morbidity and mortality among teenagers and young undergraduate students. They favor the development of organic dysfunctions such as cardiovascular diseases, diabetes, systemic arterial hypertension, atherosclerosis, stroke, and cancer[1]. Changes in undergraduate student's daily life routines along with COVID-19 pandemic also seem to reduce the quality of life and, therefore, the emergence of diseases. **OBJECTIVE:** To evaluate the level of depression, anxiety, and stress during remote teaching among professors and students of Federal Fluminense University. **METHODS:** Participant recruitment was carried out entirely online. Faculty members and undergraduate students were recruited during the second half of the remote academic semesters of 2020/1 (2020-09-14 to 2020-12-15) and 2020/2 (2021-02-01 and 2021-05-10). They provided information about sex and age, and the Depression, Anxiety and Stress Scale (DASS-21) instrument was applied. It has 21 questions grouped into three domains (depression, anxiety, and stress), consisting of seven items each. The respondent read each statement and rated its last week from 0 (strongly disagree) to 3 (strongly agree) points. The total sum of points varies between 0 and 63 points[2]. **RESULTS:** One hundred and thirty participants were enrolled, 61 (47%) professors and 69 (53%) students. Among professors, 24 (39%) were male and 37 (61%) female. Among students, 19 (28%) were male, 49 (71%) female and one (1%) did not inform. The mean DASS-21 score was 13.5±11.2 for professors and 31.8±16.3 for students. Considering each domain individually, most professors presented normal levels of depression (65%), anxiety (70%), and stress (57%). On the other hand, severe and extremely severe levels of depression, anxiety, and stress were identified in 4%, 12%, and 12% of teachers, respectively. Regarding students, most presented anxiety, depression, and stress, compared to professors ($p<0.0001$). For depression, 20% were classified as normal, while 46% were classified as severe or extremely severe. Anxiety at a normal level was identified in 30% of students, in contrast to 51% classified as having severe or extremely severe anxiety. Finally, stress was classified as normal in 18% of students but as severe or extremely severe in 55%. **DISCUSSION/CONCLUSION:** Our data confirm a high level of depression, anxiety, and stress during remote teaching in undergraduate students, but it was not observed among professors at the same magnitude. The following steps are understanding the reason for such divergence, and emotion regulation by students and professors. We hypothesize that the COVID-19 pandemic has a long-term impact on mental health, reinforcing the importance for continuing this investigation.

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R009

EFFECTS OF AÇAÍ EXTRACT (*Euterpe Oleracea Mart.)* ON THE PLACENTA OF WISTAR FETUS IN MODEL OF PRE-ECLAMPSIA INDUCED BY L-NAME

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INTRODUCTION: Pre-eclampsia(PE) refers to the arterial hypertension identified for the first time after the 20th week of pregnancy and its incidence is 2-3% among pregnancies worldwide. PE requires extreme attention since it is one of the main causes of maternal and fetal morbimortality L-NAME administration during pregnancy in rodents constitutes a model of PE.[1] [2] [3] **OBJECTIVE:**Determine if the hydroalcoholic extract of açaí seed (ASE) protects the placental, fetus and umbilical cord against L-NAME-induced adverse remodeling in experimental model of PE.**METHODS**:Project was approved by the Ethics Committee (CEUA-IBRAG-UERJ/035/2015). Pregnant Wistar rats were divided into 4 groups (n=19/group): Control(C), Control+ASE(C+ASE), L-NAME(LN) and L-NAME+ASE(LN+ASE). PE was induced in pregnant rats from the 13th to 20th day of gestation by L-NAME 60mg/kg/day, with simultaneous treatment with ASE 200mg/kg/day. On the 20th day, females were anesthetized, and the fetus, placenta and umbilical cord were collected for histomorphometry. Data are mean±SD and were tested by 2-way-ANOVA with Tukey's post-test, $p<0.05$.**RESULTS:**Administration of L-NAME increased systolic, diastolic and mean blood pressure and ASE was able to prevent L-NAME-induced hypertension.maternal microalbuminuria increased in LN group compared to C group, and ASE restored this parameter. In LN group, there was a significant reduction in placental mass, number of live fetuses and fetal weight, compared to the C group and this parameter was normalized by ASE treatment. There wasn't difference in the weight of placenta, but its diameter was greater in LN+ASE group compared to LN(2.2±0.3vs2.0±0.14cm). The length of the umbilical cord was shorter in LN group compared to C(1.7±0.4vs2.7±0.4cm) and ASE prevented its reduction in LN+ASE(2.5±0.5cm). The bidirectional analysis of variance showed that the length of the umbilical cord depends on L-NAME and ASE, and that both interact to modulate it. Fetal weight was lower in LN group compared to C(3.2±0.5vs.3.7±0.25g) and ASE prevented this reduction in LN+ASE group(3.6±0.5g). The cranio-caudal distance was shorter in LN group compared to C(2.8±0.2cmvs.3.1±0.16cm), being similar to C in LN+ASE group(3.1±0.2cm). The length of the right paw was shorter in LN group compared to C group(0.6±0.1vs.0.7±0.06cm), with a similar size between LN and LN+ASE(0.6±0,07cm). There wasn't difference between groups in eye-neck length and knee height. There was an influence of L-NAME and ASE in the measured parameters, but without interaction in most of the parameters. In the morphological analysis of placenta, the thickness of the deciduous and labyrinth didn´t differ between groups. The thickness of the spongiotrophoblast, LN group presented reduced measurements when compared to C and C+A group. **DISCUSSION/CONCLUSION:**Results demonstrate ASE prevents the development of maternal hypertension and fetal growth restriction in PE. ASE prevented the shortening of the umbilical cord induced by L-NAME, and shorter cords were associated with a higher incidence of operative interference, intrapartum complications, increased abnormalities in fetal heart rate[5].Morphometry data are consistent with an impairment of maternal-fetal exchange processes in female rats with L-NAME-induced PE. Changes in the spongiotrophoblast and trophoblast cells region can interfere with placental protein synthesis and promote metabolic deviation of lipid deposition, compromising the synthesis of hormones essentials to pregnancy[5].

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