



**INTERNATIONAL E-CONFERENCE CONTEMPORARY
PHARMACY: ISSUES, CHALLENGES AND EXPECTATIONS**

23rd OF OCTOBER 2020, KAUNAS

ABSTRACT BOOK

2020 autumn

October 23rd, 2020

Kaunas, Lithuania

The international conference “CONTEMPORARY PHARMACY: ISSUES, CHALLENGES AND EXPECTATION. 2020 AUTUMN” is organized by Lithuanian University of Health Sciences, Faculty of Pharmacy, Department of Drug Technology and Social Pharmacy.

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PROGRAMS

PLENARY SECTION

Mokslinė praktinė konferencija „Farmacija šiandien. Ruduo 2020.“

Data: 2020 m. spalio 5 d – gruodžio 2 d.

Vieta: nuotolinė konferencija*

Registracija į konferenciją čia – REGISTRACIJA

išankstinė registracija galima iki spalio 2 d.

* Prisijungti nuotoliniam konferencijos stebėjimui galima adresu (prisijungimo kodu) atsiųstu į asmeninį elektroninį paštą. Dalyvavimas (prisijungimas stebėjimui) galimas iki gruodžio 2 d.

Trukmė: 6 ak. val.

Paskirtis: farmacijos specialistų, visų specialybių gydytojų ir slaugytojų profesinės kvalifikacijos tobulinimui.**

Informacija pasiteiravimui: 8-37328303, fps@lsmuni.lt

Elektroninio pažymėjimo išdavimui būtina susikurti paskyrą LSMU podiplominių studijų sistemoje <https://medas.lsmu.lt/user/register>

PROGRAMA

| Laikas | Trukmė min. | Pranešimo pavadinimas | Lektorius |
|-------------|-------------|---|--|
| 14.00-14.45 | 45 | Streso įtaka ir valdymo galimybės visuomenės vaistininko darbe. | Doc. dr. Jurgita Daukšienė, LSMU MA FF Vaistų technologijos ir socialinės farmacijos katedra |
| 14.45-15.45 | 60 | Darbo santykių teisinis reglamentavimas. | Asist. Ugnė Genienė, LSMU MA FF Vaistų technologijos ir socialinės farmacijos katedra |
| 15.45-16.30 | 45 | Medicininiai grybai – imuninės sistemos sergėtojai. | Prof. dr. Nijolė Savickienė, LSMU MA FF Farmakognozijos katedra |
| 16.30-17.15 | 45 | Stresas ir virškinamojo trakto susirgimai. Bioreguliacinės terapijos galimybės. | Dr. Virginija Gudavičienė, Homeopatijos ir homotoksikologijos asociacija |
| 17.15-18.00 | 45 | Gyvensenos ir fitocheminių medžiagų poveikis kancerogenezei. | Prof. dr. Virginijus Šapoka, VU MF Vidaus ligų, šeimos medicinos ir onkologijos klinika |
| 17.45-18.15 | 30 | Ferodeficitinės anemijos etiologija ir gydymas. | Doc. dr. Rolandas Gerbutavičius, LSMU MA MF Onkologijos institutas, Onkologijos ir hematologijos klinika |

Iš viso: 270 min. Užskaitoma trukmė 6 ak. val.

SCIENTIFIC SECTION

INTERNATIONAL E-CONFERENCE CONTEMPORARY PHARMACY: ISSUES, CHALLENGES AND EXPECTATIONS

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Timetable

| | |
|--------------------|--|
| 9.30-9.40 | Welcome Speeches Prof. Dr. Jurga Bernatoniene Head of Drug Technology and Social Pharmacy, Lithuanian University of Health Sciences Assoc. Prof. Dr. Giedrė Kasparavičienė conference coordinator |
| 9.45-11:50 | Students Section Moderators: Gabrielė Vilkickytė and Jurga Andrėja Kazlauskaitė |
| 12:00-12:35 | PhD Students Section Moderators: Lect. Dr. Gabrielė Balčiūnaitė-Murzienė and Lect. Dr. Agnė Mazurkevičiūtė |
| 12:45-14:30 | Scientist Section Moderators: Prof. Dr. Lina Raudonė and Assoc. Prof. Dr. Giedrė Kasparavičienė |
| | Closing remarks |

The list of rewards will be announced in the Teams class environment and e-mail. Conference certificates will be sent personally by e-mail.

Place: Microsoft Team virtual meeting room

HISTORY OF PHARMACY SECTION

Dedicated to the first pharmaceutical periodical journal in Lithuania: *Pamiętnik Farmaceutyczny Wileński (Notes of Vilnius Pharmacy)*

Moderators: Ramūnas Kondratas, Vilma Gudienė

10:00–10:10 Welcome speeches

Prof. Ramunė Morkūnienė, Dean of the Faculty of Pharmacy, Lithuanian University of Health Sciences

Prof. Dušanka Krajnovič (University of Belgrade, Serbia) Secretary – General of the International Society for the History of Pharmacy

10:10–10:25 Algirdas Utkus, Dalia Triponienė, Indrė Trečiokienė, Lina Zabulienė (Vilnius University, Vilnius Medical Society) - Vilnius Medical Society and Pharmacy Science: History Continues

10:25–10:40 Vilma Gudienė, Ramūnas Kondratas (Lithuanian University of Health Sciences, Museum of the History of Lithuanian Medicine and Pharmacy, Lithuania) - The first pharmaceutical periodical journal in Lithuania: *Pamiętnik Farmaceutyczny Wileński (Notes of Vilnius Pharmacy)*

10:40–10:55 Ona Ragažinskienė (Vytautas Magnus University, Lithuania) - Pharmacist and editor of the periodical journal *Pamiętnik Farmaceutyczny Wileński (Notes of Vilnius Pharmacy)* prof. Johannes Friedrich Wolfgang (1776–1859)

10:55–11:10 Prof. Axel Helmstädter (Goethe University, University of Frankfurt, Germany) - Pharmaceutical publishing in Germany during the 18th – 20th centuries

11:10–11:25 Arnaud Parent (Mykolas Romeris University, Lithuania) - Chemistry to promote pharmaceuticals, or pharmaceuticals to promote chemistry? Fourcroy and the *Journal of the Paris Society of Pharmacists* (1796-1799)

11:10–11:25 Mary Schaeffer Conroy (University of Colorado, Denver, USA) - The Russian-language pharmaceutical press, 1867-1916

11:25–11:40 Ain Raal (University of Tartu, Estonia) - Pharmaceutical periodical journals in Estonia

11:40–11:55 Kaspars Antonovičs, Juris Salaks (Rīga Stradiņš University, Institute of the History of Medicine) - Pharmaceutical press in Latvia

11:55–12:10 Halil Tekiner (Erciyes University, Turkey) - A historical glance at pharmaceutical caricatures in the Turkish press

12:10–12:25 Viktorija Šimkutė (Lithuanian University of Health Sciences, Lithuania) - The prevention of infectious diseases as presented in the military periodicals *Kariškių žodis* (Word of Soldiers) and *Karys* (Soldier), 1919-1923

12:25–12:40 Angelė Rudžianskaitė, Vilma Gudienė (Lithuanian University of Health Sciences, Museum of the History of Lithuanian Medicine and Pharmacy, Lithuania) - Advertisements in the Lithuanian pharmaceutical journals, 1923–1940.

Closing of the section

Optimization of cold injury prevention and treatment: an experimental justification for the use of arachidonic acid cascade inhibitors

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Introduction: Exposure to cold can produce a spectrum of injuries resulting from the human body's inability to adapt to low temperatures. These injuries can be divided into localized (peripheral cold injuries) and systemic ones due to generalized cooling of the entire body (systemic hypothermia)[1]. Pathogenesis of the cold injuries is complex. But one of the main role is played by products of arachidonic acid metabolism, such as prostaglandin F_{2α}, thromboxane B₂, leukotriene B₄ and prostacyclin [2]. So it is possible to improve resistance to cold through the regulation of prostaglandins' and leukotrienes' levels.

Materials and methods: Two models were used. The first one – acute general cooling at ambient temperature -18°C [3]. As an integral index of frigoprotective effect the duration of life was chosen. In the experiment were 11 groups: 10 medicines - arachidonic acid cascade inhibitors and 1 control group. As potential frigoprotectors (drugs for prevention and treatment of the cold injuries) diclofenac sodium, acetylsalicylic acid, meloxicam, celecoxib, etoricoxib, paracetamol, ibuprofen, mefenamic acid, darbufelone mesylate (dual COX-2/LOX-5 inhibitor) and montelukast were examined. To examine anti-inflammatory properties of diclofenac sodium in the hypothermia conditions (+10°C during 3 hours) a model of exudative inflammation (carragenin-induced paw edema) was used. The severity of the inflammatory reaction was evaluated by the increase in the mass of the animals' paws. Body temperature was measured to detect frigoprotective properties and hypothermia severity. For statistical analysis Kruskal-Wallis H-test and Mann-Whitney U-test were used with statistical significance level $p \leq 0.05$.

Results: All examined agents showed the frigoprotective properties increasing life duration on 17-66%. However, the effects of COX-3 inhibitor paracetamol (125-250 mg/kg) and mefenamic acid (46-92 mg/kg) were non-significant. Diclofenac (14 mg/kg), etoricoxib (10 mg/kg), darbufelone mesylate (40 mg/kg) and montelukast (2 mg/kg) as leaders increased the duration of life on 54%, 38%, 66% and 45% respectively ($p \leq 0.05$).

On the model of exudative inflammation in the conditions of hypothermia diclofenac sodium showed no anti-inflammatory properties but frigoprotective properties were still.

Conclusions: A number of NSAIDs and antileukotrienes can be used to expand the possibilities of frigoprotective therapy. But further research is needed to determine the real possibilities and prospects for the use of individual frigoprotective agents.

References

1. Long, W. 3rd, Edlich, R., Winters, K., Britt, L., 2005 Cold injuries. *J Long Term Eff Med Implants*. 15(1), pp. 67-78.
2. McIntosh, S., Freer, L., Grissom, C., Auerbach, P., Rodway, G., Cochran, A., Giesbrecht, G., McDevitt, M., Imray, C., Johnson, E., Pandey, P., Dow, J. and Hackett, P., 2019. Wilderness Medical Society Clinical Practice Guidelines for the Prevention and Treatment of Frostbite: 2019 Update. *Wilderness & Environmental Medicine*, 30(4), pp. S19-S32.
3. Kapelka, I., Shtrygol', S., Lesyk, R., Lozynskyi, A., Khomyak, S. and Novikov, V., 2020. The comparative research of arachidonic acid cascade inhibitors for frigoprotective activity. *Pharmacology and Drug Toxicology*, 14(2), pp. 122-128.