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Oral Presentation Session 13, Hall C

Gastrointestinal Pharmacology; Rational Drug Use (C105-C110)

Chairs: Atila Karaalp (Marmara University, Turkey)
Elif Çadırcı (Atatürk University, Turkey)

15:00 C105: Proton pump inhibitor use for a twelve-month period is not associated with changes in serum magnesium levels: a prospective open label comparative study
Elton Bahtiri, Hilmi Islami, Rexhep Hoxha, Hasime Qorraj Bytyqi, Shaip Krasniqi, Kujtim Thaçi, Valon Krasniqi, Liridon Haziri, Malbora Musa

15:15 C106: The role of TLR4 in gut-brain cross talk in a murine model for Parkinson's disease
Paula Perez Pardo, Hemraj B Dodiya, Johan Garssen, Ali Keshavarzian, Aletta D Kraneveld

15:30 C107: The effect of urantide, an urotensine receptor antagonist, on the healing of indomethacin-induced gastric ulcer in rats
Zekai Halici, Elif Cadirci, Busra Diyarbakir, Muhammed Yayla, Damla Cetin, Zerrin Kutlu, Emin Sengul

15:45 C108: Potentially inappropriate drug use in elderly patients admitted to the intensive care unit of a university hospital
Medine Gulcebi, Songul Ozkula, Nesrin Duman, Gozde Ayhan, Zehra Turgan, Rezzan Gulhan, Atila Karaalp, Filiz Onat, Zafer Goren

16:00 C109: Self-Medication practice among preclinical medical students and law students of Marmara University
Akif Köse, Asibe Türkkan, Melike Ülkü Aydın, Özlem Alhan, Yasin Yıldız, Mikail Özdemir, Seyhan Hıdıroğlu, Rezzan Gülhan Aker

16:15 C110: Assessment of antibiotic prescribing performance of dentists in Turkey
Mehtap Aydın, Cenker Z Koyuncuoglu, Ipek Kirmizi, Esma Kadi, Ali Alkan, Ahmet Akici

16:30 C119: Investigation of the effects of oleuropein rich diet on rat enteric bacterial flora
Aslı Kiraz, Tuncer Şimşek, Satı Zeynep Tekin, Sait Elmas, Murat Tekin, Hasan Şahin, Hatice Betül Altınışık, Çiğdem Uysal Pala*

* Transferred from Hall E.

C119: Investigation of the effects of oleuropein rich diet on rat enteric bacterial flora

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Bacterial changes in intestinal flora are associated with metabolic and immunological problems. Biofenols such as oleuropein with antimicrobial activities regulate intestinal flora by reducing pathogenic bacteria. We aimed to investigate how intestinal flora is affected in rats fed predominantly with oleuropein.

Twenty adult, male Wistar albino rats were randomly divided into two groups. Group O (n=10) received olive leaf extract 20 mg/kg/day by intragastric gavage in addition to standard rat chow and water for 30 days. Group C (n=10) were fed with standard rat chow and water for 30 days. After 30 days, laparotomy was performed in all rats and one gram of ceacal contents were collected. Sterile physiological saline solution of 9 mL was added to all ceacal contents and consecutive 10-fold serial dilutions were prepared with a final concentration of 10^{-8}. The diluted samples were inoculated on Plate Count agar and Violet Red Bile Glucose agar to determine the total number of enteric bacteria. After incubation at 37 °C for 48 hours, isolated bacterial counts from the plates were recorded as CFU/g (colony forming unit/gram).

Total aerobic bacterial counts of Group O were significantly lower than Group C in all plates inoculated with ceacal samples in every dilution ($p<0.005$) (Table 1).

Oleuropein reduced the bacterial count isolated by conventional aerobic culture methods we used, however other bacteria that could not be isolated with this method were not counted and this is a limitation of our study. It is known that patients in intensive care units are prone to develop bacterial translocation (BT). Mortality rates will decrease by starting enteral nutrition earlier in critically ill patients. Addition of oleuropein on enteral nutrition solutions may be helpful in recovery of critically ill patients predisposing to BT by reducing enteric bacterial count.

Keywords: enteric bacteria, intensive care, oleuropein, rat

Table 1. Total aerobic bacterial counts in two groups (CFU/g)

	Group O (n=10)	**Group C (n=10)**
Dilution of caecal samples	PCA/VRBG Mean (min-maks)	PCA/VRBG Mean (min-maks)
10^{-1}	62.1x104 (55x104-69x104)*/32.5x104 (26x104-38x104)*	78.4x106 (72x106-86x106)/50.9x106 (46x106-55x106)
10^{-2}	59.1x104 (51x104-74x104) */28.5x104 (21x104-35x104)*	72.8x106 (66x106-79x106)/45.8x106 (42x106-49x106)
10^{-3}	53.1x104 (45x104-64x104) */24.8x104 (19x104-29x104)*	66.8x106 (62x106-74x106)/40.6x106 (37x106-44x106)
10^{-4}	46.8x104 (40x104-57x104) */21x104 (17x104-24x104)*	60.8x106 (54x106-68x106)/34.6x106 (30x106-39x106)
10^{-5}	37.6x104 (22x104-52x104) */16.4x104 (13x104-19x104)*	54.4x106 (49x106-61x106)/29.1x106 (24x106-34x106)
10^{-6}	31.4x104 (17x104-46x104) */11.9x104 (8x104-15x104)*	48.1x106 (43x106-56x106)/22.7x106 (19x106-27x106)
10^{-7}	26x104 (12x104-42x104)*/ 8.7x104 (5x104-12x104)*	40.8x106 (34x106-49x106)/17.3x106 (13x106-22x106)
10^{-8}	16.7x104 (3x104-31x104) */3.8x104(1x104-8x104)*	33.8x106 (29x106-41x106)/11.1x106 (6x106-17x106)

*PCA: Plate Count Agar, VRBG: Violet Red Bile Glucose Agar CFU/g: colony forming unit/gram *: with Mann-Whitney U test p<0.005*