

Medicine and Health Sciences

Research Title

Associated risk of Blastocystis infection in gastrointestinal tract cancer: a case-control study.



Main Presenter: Hajar Ahmed Abed Alktifan

ABSTRACT: Blastocystis is an intestinal protozoan of undetermined pathogenicity and high genetic diversity. Blastocystis infection has been linked to chronic diseases e.g. Colorectal Cancer (CRC) which is the second most common cancer and the second highest cause of cancer mortality in UAE. Thus, further investigations regarding the relationship between CRC and Blastocystis infection is warranted. 3 groups of participants were recruited: (1) GTC patients, (2) patients with cancers outside gastrointestinal tract (COGT), (3) Asymptomatic population. Participants were consented to complete questionnaires and provide fresh stool samples. Fecal specimens were analyzed to detect 7 subtypes of Blastocystis using microscopic analysis, PCR and sub-genotyping. 53.3% (n=8/15) of cancer patients and 33% (n=5/15) of healthy individuals were positive for at least one Blastocystis subtype by PCR. Blastocystis ST1 was the most common (43.3%, n=13/30). Blastocystis infection were lower in patient with GTC compared to COGT. Microscopic analysis shows that 20% of healthy individual (n=3/15) and 13.3% of cancer patients (n=2/15) were positive at least for one parasite. We expected that GTC patients' specimens will show the highest prevalence of Blastocystis infection. However, the actual findings showed otherwise; with the highest Blastocystis infection prevalence among non-cancer patients then patients with COGT and GTC respectively.

Meet the co-presenters



**Maryam Ahmed Abed
Alktifan**

Meet the supervisor

**Zakeya Nasser Salem Hamad Al
Rasbi**

UAEU

جامعة الإمارات العربية المتحدة
United Arab Emirates University

وحدة نجاح الطلبة
Student Success Unit (SSU)



Presentation Time: 11:00 to 11:20

Research Title

MRI Signs of Age-Related Brain Atrophy



Main Presenter: Shouq Mohammed Altaklani

ABSTRACT: Aging is related to brain structural changes assessed while reporting MRI, CT. New emerging evidence from morphological studies of the brain (e.g., voxel-based brain morphometry) may help physicians to establish early diagnostic criteria of neurodegeneration. We aimed to explore how brain anatomy varies in the healthy population over time. For this we collected multiple MRI examinations from people of various ages, analyzed them, and showed age-related differences in brain compartments. Methods: 231 participants of the study were equally distributed over four age groups (0-20; 20-40; 40-60; ≥ 60 years). We evaluated the results of brain volumetry and generated trendlines for each age group and checked the linear models for statistically relevant variations in slopes to compare the lifetime patterns of brain atrophy for brain compartments (gray matter, white matter, white matter lesions). Results: atrophy of gray matter is the most prominent feature of normal brain aging. The intraventricular volume expands significantly less than the total amount of the cerebrospinal fluid. The rate of atrophy of the studied brain compartments does not differ significantly between young and midlife adults. Conclusion: after massive neurodevelopmental changes, brain atrophy slowly progresses from the age of 20 to 60 years and then speeds up.

Meet the co-presenters

Noura Obaid Mohammed Alneyadi

Mahra Alshaiba Khamis Al Sheryani

Hajar Ahmed Alktifan

Meet the supervisor

Dr. Taleb M. Almansoori



Research Title

Performance in Neurophysiological Tests During Aging



Main Presenter: Maryam Ahmed Alktifan

ABSTRACT: A physiological outcome of aging is cognitive slowing which can be hard to diagnose at an early stage. We intend to improve the diagnostics of the early cognitive retardation. To address the aim we identify the following objectives: (1) to estimate the onset of cognitive decline in healthy population with behavioral tests (2) predict individual's age group. The comparison of the predicted ("cognitive") age with the actual chronological age may contribute to early diagnostics of accelerated aging. **Methods:** We used linear statistics and machine learning approach. **Results:** The results of psychophysiological tests follow a U-shape function across the lifespan. It reminds the known inverted function of white matter volume changes with the optimal values in over 35 years of age, with a period of stability and accelerated decline after 55-60. The shape of the age-related variance of the major cognitive tests results is linear. It reminds the trend of the lifespan gray matter volume changes that starts from adolescence. There is no considerable gender difference in the lifelong dynamics of major tests estimates. The performance of the classification model identifying subjects' age groups is high. **Conclusions:** ML models can be designed and utilized as a computer-aided detector of neurocognitive retardation.

Meet the co-presenters

Hajar Ahmed Alktifan

Abrar Ahmed Alamri

Noura Obaid Mohammed Alneyadi

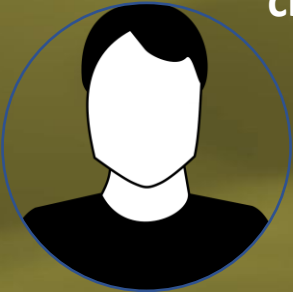
Meet the supervisor

Yauhen Statsenko



Research Title

Dyslipidemia and its association with overweight and obesity among children and adolescents in United Arab Emirates.



Main Presenter: Mohammed Ali Al Ahbabi

ABSTRACT: Background and objectives: Obesity is fast increasing among children in United Arab Emirates (UAE). Those with overweight and obesity may be at increased risk of dyslipidemia. This study aimed to identify prevalence of dyslipidemia among children and adolescents and its relationship with overweight and obesity.

Methods: We employed a cross-sectional design and selected a random sample of 1186 children and adolescents aged 12 to 18 years, with measured lipid concentrations, from 114 schools in Al Ain, Abu Dhabi in UAE. Adverse concentrations of total cholesterol (TC) (≥ 200 mg/dL), high-density lipoprotein cholesterol (HDL-C) (< 40 mg/dL), low-density lipoprotein cholesterol (LDL-C) and triglyceride (≥ 130 mg/dL) were examined. Overweight and obesity was defined as at or above the 85th and 95th percentile of the sex-specified Body Mass Index for age.

Results: Among the study participants, 7.7% (95% CI, 6.3-9.4) had elevated TC, 49.6% (95% CI, 46.4-52.3) low HDL-C, 3.6% (95% CI, 11.7-15.7) had elevated LDL-C level, and 5.8% (95% CI, 4.5-7.3) had elevated triglyceride level. Off 1186 participants 435 (36.7%) were overweight and obese. Multivariable models that controlled

Conclusion: Dyslipidemia is a significant public health problem in adolescents in UAE. School-based intervention need to reduce obesity and screen adolescents to control dyslipidemia.

Meet the co-presenters

Aysha Ali Al Ahbabi

Saeed Khaled Al Kaabi

Ahmed Younis Al Katheeri

Meet the supervisor

Prof. Syed Mahboob Shah



Research Title

Association studies on genetic variants in UAE schizophrenic patients.



Main Presenter: Mohammed Ali Al Ahababi

ABSTRACT: Introduction: Schizophrenia is a neurodevelopmental disorder with a complex etiology and a strong genetic influence.

Aims and Objectives: To assess the association between genetic variations in DRD2 (rs1801028) and DISC1 (rs202102981) and the development of schizophrenia in the UAE. Candidate SNPs case-control association study was designed investigating the genotype in two previously investigated variants in the 2 genes in other populations

Materials and Methods: DNA samples were extracted from blood samples of 124 schizophrenic patients and matched controls (n=220) from the UAE population collected upon obtaining a written informed consent. TaqMan SNP genotyping assays were used for genotyping followed by data analysis to determine allele frequency and check for Hardy-Weinberg equilibrium.

Results: A significant association between the DRD2 variant genotype and schizophrenia was found (p value 0.002), the T/T genotype has more frequency in cases (36.1%) than controls (27.2%), whereas the C/C genotype has more frequency in controls (23.3%) than cases (13.5%), indicating that the T/T individuals have more chances to become schizophrenic than C/C individuals.

Conclusions: Candidate gene association studies have been extensively for several multifactorial diseases to identify associations and assess the risks of a disease.

[Meet the co-presenters](#)

Zahra Mohammed Asyan Almansoori

[Meet the supervisor](#)

Prof. Bassam Ali



Research Title

β -caryophyllene attenuates lipid peroxidation and improves non-enzymatic antioxidants in isoproterenol induced myocardial necrosis in rats



Main Presenter: Husain Chaqfa

ABSTRACT: Myocardial infarction (MI) is one of the primary causes of morbidity and mortality worldwide. Although, timely reperfusion and active pharmacotherapy contribute to reduce infarct size and mortality, adverse ventricular remodeling after MI is still the leading cause of heart failure.

Aims & Objectives: The present study demonstrates the cardioprotective effect of β -caryophyllene, a phytocannabinoid against ISO-induced myocardial necrosis.

Materials & Methods: Male Wistar albino rats were pre- and co-treated with α -bisabolol (50 mg/kg b.w, orally) daily for 10 days alongwith subcutaneous injection of ISO (85 mg/kg b.w) at an interval of 24 h for two days (9th and 10th day).

Results: Increased activity of serum creatine kinase alongwith altered lipid peroxidation products and non-enzymatic status were observed in the plasma and heart of ISO-induced myocardial infarcted rats. Pre- and co-treatment with BCP (50 mg/kg b.w) showed considerable protective effects on all the biochemical parameters studied. It also maintained the hemodynamics in isoproterenol induced rats.

Conclusions: BCP appears to protect against ISO-induced MI by its potent antilipid peroxidation and antioxidant properties.

Meet the co-presenters

Mohammed Al Ahababi

Meet the supervisor

Dr. Shreesh Kumar Ojha



Medicine and Health Sciences

Research Title

Unsafe behavior of bicyclists in Al Ain, UAE: An observational study.



Main Presenter: Ahmed Younis Ahmed Mahdi

ABSTRACT: Introduction: Severe head injuries of bicyclists when hit by cars have high morbidity and mortality. Bicycle helmets reduce the severity of head injuries. The overall compliance of bicycle helmets varies depending on helmet use legislation.

Aims and objectives: We directly observed the behavior of bicyclists on the roads of Al Ain City aiming to assess the level of safety of cycling.

Materials and methods: We developed and used a structured data collection form. We divided Al Ain City into sectors and randomly selected different sectors, times during week and day in order to cover the whole City. We observed bicyclists without direct contact or interview.

Results: We observed 1129 bicyclists, 97.6% were males, 27.6% were cycling against the traffic, 39.3% at night and 96.8% of them were not using lights. Only 2.1% of the cyclists used helmets (n=24). Female cyclists significantly used helmets compared with males (25.9% vs 1.5%; $p < 0.001$, Fisher's Exact test). Most riders were cycling on Saturdays and on Sundays.

Conclusions: Unsafe behavior of bicyclists in Al Ain City persists with low use of helmets and often driving at night without proper lights necessitates the intervention aiming on raising awareness and enforcement of legislation.

Meet the co-presenters

Saeed Al Kaabi

Mohammed Al Yafei

Mohammed Al Ahabab

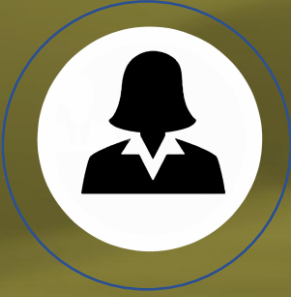
Meet the supervisor

Prof. Michal Grivna



Research Title

Global epidemiology of urticaria – rising burden among children, females, and low-income regions.



Main Presenter: Nourhan Salaheldin Ali Elsayed

ABSTRACT: Introduction: Currently, the global epidemiology of urticaria and its geographical and temporal trends are not well studied in existing literature. By characterizing the global patterns of disease, clinicians and public health professionals will be able to better understand and reduce the impact of urticaria.

Aims & Objectives: This study aimed to evaluate the global patterns and trends for urticaria over the last three decades, and to assess the effect of socioeconomic development on urticaria prevalence. **Materials & Methods:** Using the Global Burden of Disease dataset, we analyzed the age-standardized prevalence, incidence, and years lived with disability of urticaria in 195 countries from 1990 to 2017. Additionally, the relationship between gross-domestic product and the disease burden of urticaria was evaluated.

Results: The global prevalence of urticaria was 86 million people in 2017, roughly 1.1% of the global population. Females and children aged one to four were more commonly affected—these differences were outside the 95% uncertainty intervals. The age-standardized global prevalence rate remained stable from 1,119 cases per 100,000 in 1990, to 1,126 per 100,000 in 2017. Regression analyses showed that a higher GDP per capita was positively associated with prevalence and incidence.

Conclusions: Urticaria is more common in females, children aged one to four, and regions with lower GDP per capita. Global prevalence, incidence, and YLDs have remained stable between 1990 and 2017.

Meet the co-presenters

None

Meet the supervisor

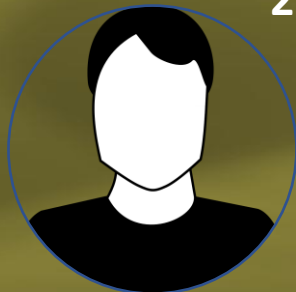
Dr. M Jawad Hashim



Medicine and Health Sciences

Research Title

β -Caryophyllene, a natural bicyclic sesquiterpene attenuates β -adrenergic agonist-induced myocardial injury in a cannabinoid receptor-2 dependent and independent manner



Main Presenter: Ahmed Juma AlKaabi

ABSTRACT: AWAITING

Meet the co-presenters

Nagoor Meeran

Meet the supervisor

Dr. Shreesh Ojha

UAEU

جامعة الإمارات العربية المتحدة
United Arab Emirates University

وحدة نجاح الطلبة
Student Success Unit (SSU)



Presentation Time: 3:00 to 3:20

Research Title

The prevalence of seatbelts use in the United Arab Emirates



Main Presenter: Maitha Khamis Alnuaimi

ABSTRACT: Background and Aims: Road traffic injury is a leading cause of death and injury in the United Arab Emirates. Mortality from RTI is higher in the UAE than other countries (MoH, 2018). Wearing seatbelts reduce deaths among drivers and front seat occupants by 45-50% (WHO, 2018). This study aims to estimate seatbelt use in Abu-Dhabi emirate, UAE.

Methods: A cross sectional analysis, using direct observation methods of drivers and front seat passengers at petrol stations in Abu Dhabi and Al Ain, was undertaken during January-March 2020, to assess compliance with the seatbelt law in the UAE.

Results: A sample size of 706 motor vehicles was approached, and the response was 87.4%. Overall, 45.5% of drivers and 50% of front seat passengers wore seatbelts. Women (55.7%) were more compliant with seatbelts compared to men ($p < 0.04$). Local citizens were less compliant with seatbelts compared to nonlocals (39.1% vis-a-vis 44.2; $p < 0.05$).

Conclusions: The results showed a slight improvement in seatbelts use in Abu Dhabi emirate, compared with previous estimates by Barss et al. (2008), where 10% of local citizens and 40% of nonlocal citizens were reported using seatbelts (2008). The new data will help directing the public attention to increase awareness and enforcement of seatbelt use among people in UAE.

Meet the co-presenters

Maitha Khaleel Alhosani

Fatima Rashid Alkindi

Sara Hasan Almarzooqi

Meet the supervisor

Dr. Mohamed El Sadig



Research Title

COVID-19 Knowledge, Attitudes, and Practices of United Arab Emirates Medical and Health Sciences Students: A Cross Sectional Study



Main Presenter: Noura Baniyas

ABSTRACT: COVID-19 pandemic is the largest unprecedented viral pandemic of the 21st century. We aimed to study the COVID-19 knowledge, attitudes, and practices (KAP) among medical and health sciences students in the United Arab Emirates (UAE). We performed a cross-sectional study between 2nd June and 19th August 2020. The survey was developed using online Survey Monkey. The link was distributed via UAE University to all students and via WhatsApp® groups. The self-administered questionnaire was conducted in English and comprised of two parts: socio-demographic characteristics and KAP towards COVID-19. A total of 712 responses to the questionnaire were collected. 90% (n=695) were under-graduate, while 10% (n=81) were post-graduate students. Majority (87%, n=647) stated that they obtained COVID-19 information from multiple reliable sources. They were highly knowledgeable about COVID-19 pandemic but 76% (n=539) did not recognize its routes of transmission. 63% (n=431) were worried of getting COVID-19, while 92% (n=633) were worried that a family member could get infected with the virus. 97% (n=655) took precautions when accepting home deliveries, 94% (n=637) had been washing their hands more frequently, and 95% (n=643) had been wearing face masks. In conclusion, participants showed high levels of knowledge and awareness about COVID-19. They were worried about getting infected themselves or their family members, and had good practices against COVID-19.

Meet the co-presenters

Nouf Al Kaabi
Maitha Al Shamsi

Maitha Al Neyadi
Rauda Al Khoori

Meet the supervisor

Dr. Mohamud Sheek-Hussein



END OF PROGRAM