Ministry of Education and Science of Ukraine
State University “Uzhhorod National University”
Medical faculty № 2

THE FIRST MEDICAL CONFERENCE FOR STUDENTS

ABSTRACT BOOK

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The abstract book **“THE FIRST MEDICAL CONFERENCE FOR STUDENTS”** includes students’ scientific abstracts which were presented at the medical conference for students on 16th of May 2022.

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THEORETICAL SECTION

CONTENT

10. Prevalence of Sleep Disorders

Mohammed Abdul Danish
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The problem of studying medical terms and their equivalents in variants of English as a means of improving communication effectiveness in a multicultural professionally oriented environment

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Introduction. English professional competence is an integral part of the vocational training of healthcare professionals, since English as the lingua franca largely dominates at the global labour market. For international students majoring in Medicine, whose language of training is English, it is especially important to acquire a sufficient level of English professional competence, since their future careers will most likely take place in versatile English professional environments.

Throughout human history the English language has branched into a number of regional varieties, differing in terms of pronunciation, vocabulary, spelling, punctuation, and usage. This may prove challenging to both native and non-native speakers, causing confusion and misunderstanding, especially with regard to professional communication. In the context of Medical English, the key differences lie in terminology and spelling.

Aim of the study. The present paper aims to select and analyse 50 medical terms, compare their equivalents in the two main variants, British and American English (BrE and AmE), as well as in African and Indian English (AE and IE), which are either a native or second language for the majority of students at Medical Faculty №2 of Uzhhorod National University.

Material and methods. The following methods have been used in the study: theoretical (analysis of written sources – Medical English textbooks, scientific articles, clinical records, etc.; and oral sources – training videos, online lectures, medical drama television series (e.g. “House” and “Doctors”), etc.; empirical (observation and comparison of medical terminology in different variants of English).

Material and methods. 50 medical terms which describe anatomical structures, procedures, conditions, processes, and treatments have been selected and analysed. The number of terms which fall into a particular category has been distributed equally (10 terms have been selected for each category).

Results. The analysis of the selected terminology shows that only anatomical terms are in harmony in all 4 variants of English considered in this paper. This can be explained by the fact that anatomical terminology is commonly of Greek and Latin origins (e.g. BrE – *intercostal muscles*, AmE – *intercostal muscles*, AE – *intercostal muscles*, IE – *intercostal muscles*). As for the remaining 4 categories, 72% of the analysed terms have different equivalents at least in one or two varieties of English (e.g. BrE – *jab*, AmE –

shot, AE – *injection*, IE – *injection*; BrE – *A&E*, AmE – *ER/ED*, AE – *ER*, IE – *ER*; BrE – *fit*, AmE – *seizure*, AE – *seizure*, IE – *fit*; BrE – *to be sick*, AmE – *to vomit*, AE – *to be sick*, IE – *to vomit*). Only 28% of analysed medical terms are the same in all variants of English (e.g. BrE – *concussion*, AmE – *concussion*, AE – *concussion*, IE – *concussion*).

Conclusions. The study has demonstrated that most medical terms have different equivalents in variants of English. Therefore, in order to improve communication effectiveness in a multicultural professionally oriented environment it is absolutely necessary to study and analyse medical vocabulary typical of main variants of English as well as of its regional varieties, familiar to the students.

Advantages and disadvantages of learning Ukrainian as a foreign language in a remote form from a student's point of view

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Introduction. The advent of COVID-19 has disrupted the traditional learning system. Consequently, we had to adapt to the virtual platforms for distance learning, with both teachers and students trying to make a smooth transition to this new way of learning. Therefore, recently, the topic of distance learning (in different aspects of different disciplines) has attracted the attention of researchers. However, mostly from the point of view of the teachers. We decided to analyze the student's view on this issue. This is the novelty of our work.

Aim of the study. To outline the advantages and disadvantages of learning Ukrainian as a foreign language from the point of view of an English-speaking medical student of Faculty № 2 UzhNU.

Methods. Observation, description and generalization.

Results. Based on my own observations, it was noticed that the Ukrainian language as a discipline of the humanitarian cycle has not lost much in the transition to distance learning. Rather, it received many advantages:

ADVANTAGES: 1) More student participation due to flexibility of timings and no geographical limitations: One can participate from the comfort of his/her sofa.

2) Ability to use several resources anytime during class: (e.g. Using Translator, dictionary, etc.) at anytime eases the process of understanding vocabulary and learning new words.

3) Increased retention of vocabulary and pronunciation as students can re-read, skip or accelerate at their own pace, without drawing attention of the teacher or fellow mates.
DISADVANTAGES:
1) Students have to be attentive and learn at their own accord. So, despite the teacher's efforts, it is ineffective for those who get easily distracted and lack intrinsic motivation to work.
2) Sometimes, it is difficult to grasp pronunciations that involve complex movements and twists of tongue, lips, etc. due to physical limitation.
Conclusions. In the study, we payed attention to only some of the most important, in our opinion, the advantages and disadvantages of learning Ukrainian as a foreign language remotely. First of all, it is certain organizational, technical and physiological aspects that have influenced the process of studying the discipline. These are the advantages and disadvantages that we, as students, have experienced the most. But the list, of course, can be continued. This is the subject of a separate study.

Synonymy in medical terminology of the Ukrainian language

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Introduction. The study of medical terminology is one of the advanced directions in modern science, since the vocabulary of languages, including national ones, is filled up by terminology. New terms appear as a result of new discoveries, scientific achievements in the field of medicine. The problem of the synonymy of terms, i.e. the use of several special lexical units for naming a single concept, through present continues to be one of the most important problems of terminology.
Aim of the study is to define synonymy in medical terminology as excess or necessary phenomenon and at the same time to identify the role and place of synonymy in medical discourse.
Material and methods. The idea of defining the meaning of a language expression through a class of all synonymous expressions used in the description of synonymous medical terms is complemented by a component analysis of terms and the analysis of their vocabulary definitions. The latter allows revealing the information capacity of a medical term. The terms for research were taken from Dictionary of Ukrainian medical terms (Литвиненко Н., Місник Н. *Тлумачний словник медичних термінів*, Київ: Перун, 2018. 848 с.).

Results. Synonymy of terms is a type of semantic relations based on the ability of different terminological units to designate one special concept, expressing various additional signs of the concept, emotional or stylistic nuance, usability and co-occurrence with other terminological units. We will talk about equivalent terms that are interchangeable, as shown in the following example, e.g.“ Алергічний риніт клінічно характеризується наявністю одного або кількох із наступних симптомів: свербіж у носі, чхання, закладеність носа, ринорея (передня чи задня), а іноді й **зниження нюху (гіпосмія)**”/Allergic rhinitis is clinically characterized by the presence of one or more of the following symptoms: nasal itching, sneezing, nasal congestion, rhinorrhea (anterior or posterior), and, sometimes, **reduction in smell (hyposmia)**“.

The following sources of synonymy in Ukrainian medical terminology were found out:

1. Greco-Latin synonymy, e.g., *ангіопатія – вазопатія (angiopathy – vasopathy)*, etc.
2. Synonymy of borrowed and native Ukrainian terms, e.g., *ліпома – жировик (lipoma)*, etc.
3. The synonymy of the term and its equivalent from the common vocabulary, e.g., *паротит – свинка (mumps)*, etc.
4. Synonymy of native Ukrainian terms, e.g., *хвороба – захворювання (disease),* etc.
5. Synonymy of the term and its euphemistic meaning, e.g., *смерть – летальний випадок (death), ожиріння – надмірна вага (obesity)*, etc.
6. Synonyms - full and short variants, e.g., *антисептичний засіб – антисептик (antiseptic)*.
7. Intra-industry synonymy, as shown in the following examples, e.g., *реакція – проба (reaction-sample), радіологія – рентгенологія (radiology-rentgenology)*, etc.

Conclusions. Despite the fact that synonymy in terminology is an undesirable phenomenon, it exists and even has a positive side, especially when a doctor communicates with a patient. When translating from one language to another, the use of synonyms helps to avoid repetition. The results of this study contribute to the selection of the correct, appropriate synonym for the term.

Ways of learning medical terminology

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Introduction. Medical terminology is used to describe different anatomical structures, procedures, conditions, treatments and processes. Each academic year students acquire more and more medical terms. At the beginning of their education, students need as many visual aids, context, and associations as possible but as they become more experienced, ways of learning medical terms may change.

There are numerous strategies that can be used to keep medical terms stored in our memory. In this scientific work, the most effective ways have been collected which help students easily remember medical terminology while studying health administration.

Aim of the study. The aim of this scientific work is to discover the most effective way of learning medical terminology.

Material and methods. The following methods have been used in the scientific work: theoretical (analysis of ESL methodology books written by Jim Scrivener and Scott Thornbury, also articles published by medical institutions to identify useful ways of learning terms); empirical (polls of students of different years of studying in order to choose useful ways of learning medical terminology in particular).

Results. The present study confirms the findings of effective ways of learning medical terminology. The analyzed ways of learning terminology are as follows: Greek and Latin origin, patterns in words, using acronyms, learning terms in collocations, creating flashcards, using apps/websites, spelling games, writing down a term several times, regurgitating, drilling, sticky notes, writing students' own vocabulary. The analysis of polls of medical students (1-3 years of studying) has shown that the most effective way of learning medical terminology in general and as a part of individual work is using the knowledge of patterns (prefixes, roots, suffixes) – 56% of all ways. Using students' background knowledge of Latin is the most prevalent way which is applied in lessons (60 % of all ways). The least common way is regurgitating (about 5 % of all ways).

Conclusions. From these results, it is clear that for medical students learning patterns, which can be in English, Latin/Greek, is essential, therefore, should be used as a technique of clarifying the meaning of medical terms by students learning individually as well by teachers during lessons.

Complex impact of polarized radiation and some photosensitizers on the growth rate of *Staphylococcus aureus*

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Introduction. Due to the increase in resistance to antibiotics, the study of non-medicamentous means on opportunistic microorganisms is of big relevance. One such means is antimicrobial photodynamic treatment (aPDT). This method involves the use of low power radiation with appropriate wavelength treated with a photosensitizer (PS), which results in the generation of reactive oxygen species that kill bacteria unselectively via an oxidative burst.
Aim of the study. To investigate impact of polarized incoherent low-energy radiation (PILER), photosensitizers and set of specified factors on the growth rate of *Staphylococcus aureus*.
Material and methods. Direct impact of PILER light with different wavelength, PSs (methylene blue, malachite green, brilliant green, cristal violet, fuchsin, and azure), and complex influence of PILER light and PSs on the growth rate of clinical isolate *S. aureus* on solid media was studied. Growth intensity was measured by counting amount of microbial colonies on the Petri dishes after cultivation in the thermostat. Obtained data were compared with control group.
Results. Obtained data showed that irradiation of microbial suspension by PILER light caused either no effect or barely noticeable inhibition of clinical isolate *S. aureus* growth, compared to the control. The use of PSs (3rd group) induced a decrease in colony count on average on 15.2–39.5 %, compared to the control group. The most significant antimicrobial effect showed crystal violet, malachite green, and brilliant green. Finally, complex use of PSs and PILER light led to decrease in bacterial colonies count on 23.7–63 %, compared to control group. The biggest bactericidal effect was observed for crystal violet and PILER light with yellow filter, and methylene blue and PILER light with red filter.
Conclusions. Combined impact of photosensitizers and polarized incoherent low-energy radiation have pronounced bactericidal effect on both clinical isolate of *S. aureus*. Obtained data can be used in treatment of inflammatory-purulent processes caused by *Staphylococcus aureus*, particularly periodontal tissue diseases.

Combined impact of LED radiation and photosensitizers on the growth rate of *Escherichia coli*

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Introduction. The development of resistance of microorganisms is the inevitable biological consequence of antibiotic therapy. Among newly developed approaches to combat resistant bacteria is the use of physical factors, including low-energy radiation. Photo treatment and photodynamic therapy are relatively new and promising methods of treating infectious diseases as well as other pathological conditions.
Aim of the study. To study combined effect of red spectrum LED radiation and severel photosensitizers on the growth rate of clinical isolate Escherichia coli.
Material and methods. For experimental studies standardized culture of *E. coli* was taken with subsequent investigation of the impact of LED radiation, photosensitizers (0.1 % aqueous solutions of methylene blue, azure, malachite green, brilliant green) and combined effect of radiation and photosensitizers on the growth rate of specified bacterium on the solid media. Obtained data were compaired with control group of microorganisms. The source of LED radiation was device Medolight Red by Zepter group.
Results. Combined impact of LED radiation and photosensitizers showed significant antimicrobial effect on the investigated strain *E. coli*. Thus number of bacterial colonies on solid medium decreased in 35-53 % compairing to the control group. The most pronounced effect showed complex influence of methylene blue and LED radiation. Simple irradiation of standardized inoculum by LED radiation did not show pronounced effect on the growth rate of *E. coli*. Growth intensity of bacteria treated by photosensitizers decreased in 16-29 %, comparing to the control group.
Conclusions. The combined effect of 0.1% aqueous solution of photosensitizers and LED radiation with red spectrum has a pronounced antimicrobial effect against the studied strain of *E. coli*. Given the fact of occurrence and spread of antibiotic resistance, described method can be considered as potential alternative of traditional medicamentous treatment of purulent infection, caused by *E. coli*.

Relationship between social addiction and eating behaviour

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Introduction. Social media nowadays has a large and rather worrying grip on our lives, influencing what we do, think, enjoy and even eat. On that last point, international organisations have been held accountable for eating disorders such as *anorexia* in

teenager girls due to the constant promotion of such a lifestyle on their websites and in advertisements. 'Influencers' on social also promote lifestyles and eating habits that many of their followers would probably find appealing and want to mimic. Not only does imitating these habits make social media users feel satisfied with themselves but it also boosts self-esteem. This means a positive result (in imitating) is rewarding but a negative result may be detrimental to self-esteem and self-image.

Aim of study. To find the connection between social addiction and eating behaviour.

Materials and methods. We conducted anonymous questionnaire among 26 students of 2nd course of medical faculty №2. We used questionnaire for identification the level of social addiction SMAS (social media addiction scale) and AEDQ (adult eating behaviour questionnaire for identification of the type of eating behaviour. Statistical analysis was done by program Minitab.

Results. According to the results we divided students on three groups: 6 students did not have social addiction, 10 students had the lower level of social addiction and other 10 students had the moderate level of social addiction**.** Next step was to identify type of their eating behavior. Students without social addiction related to the eating behavior group "enjoyment of food". Students with the lower level of social addiction related to the eating behavior group "enjoyment of food" (7 students) and 3 of them related to the group "food responsiveness". In the group with the moderate level of social behavior 8 students related to the group "food responsiveness" and 2 of them related to group "enjoyment of food". The statistical analysis include the finding of correlation between type of social behavior and eating behavior. We found only statistically significant correlation among students with the moderate level of social behavior and the eating group "food responsiveness" ($r=0.35$, $p<0.04$).

Conclusions. To sum up, students with moderate level of social addiction are likely to have increase appetite and desire to eat, which could lead to obesity.

Relationship between the level of anxiety and self-regulation eating behaviour

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Introduction. In a modern life a lot of people undergo stress. Stress is one of a factor which may influence behaviours and health especially when an individual faces challenges that requires physical or mental reaction. To our knowledge the

hypothalamus is a neuroendocrine link, which mainly responsible for regulation vital function in our body through hormones and autonomic nervous system. Besides these, the hypothalamus acts as the control center for hunger and satiety.

Aim of study. To find the connection between the level of anxiety and self-regulation eating behaviour.

Materials and methods. For this study was conducted anonymous online survey among 13 students of 2nd course of medical faculty №2. We used questionnaire GAB-7 (General Anxiety Disorder 7) and SREBQ (self-regulation of eating behavior questionnaire). Correlation method was used for statistical analysis data.

Results. Our results demonstrate that 8 students had mild level of anxiety and 5 of them had moderate level of anxiety. According to SREBQ 7 of the students with moderate level of anxiety had the low level of self-regulatory eating skills and 6 of the students had moderate level of self-regulatory eating skills. Next step was statistical analysis of date. We found statistically significant connection between level of anxiety and self-regulatory eating skills in the whole data ($r=-0.40$; $p<0.04$).

Conclusions. The main conclusion that can be drawn is that students with moderate level of anxiety have low self-regulatory eating skills. Due to this, they could not control amount and type of food, which they eat. As a result, it could lead to disorders of eating behavior.

Factors that influence on the level of stress resistance among students

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Introduction. Stress resistance is one of the key characteristics that helps maintain physical and mental health. Resistance to stress in medical students provides effective learning, successful adaptation in the field of research and promotes training in future professions.

Aim of the study. To detect the stress resistance level in relation to the students` year of studying.

Material and methods. The Holmes and Rahe Stress Scale were used in this scientific research to evaluate the level of stress resistance. The questioner was completed by 45

students from different year of studying at the Medical Faculty №2. It consists of a scale that includes 43 questions about important life events, each of which corresponds to a certain number of points depending on the degree of its stress. If the total score is 150-199 – the degree of stress resistance is high, 200-229 points – threshold, 300 or more points – low resistance.

Results. The regression analysis was conducted to detect the factors which influence on the stress resistance. It was detected that with increase in the year of studying (0,09) on 1 unit the stress resistance increase by 8,03 ($p<0.00079$). With increase in average weekly load of subjects (0,51) on 1 unit the stress resistance decreases by 6,82 ($p<0.00002$). It is also approved by over results according to which the higher degree of stress resistance war found in 6^{th} year students (87%) and the greater degree of low stress resistance was found in 1^{st} year (79%). It is known that average weekly hour load of subjects is the highest on 1^{st} and 2^{nd} courses after 3^{rd} – it decreases. Also with increase in the year of studying number of subjects decreases. Of course students become more adapted to the studying load with time.

Conclusions. The average weekly hour load of subjects and adaptation of students to studying load are the main factors that significantly influence on the stress resistance level ($F(4,72) = 1516,0$; $p<0,00001$).

Prevalence of Sleep Disorders

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Introduction. Many college students are at risk for developing sleep disorders, and many of them are also at risk for academic failure. These are usually ignored in a particular setting like medical school. Methods like the Global sleep assessment questionnaire survey [GSAQ] provide great screening at the level of primary health care and are easier to administer.

Aim of the study. To find the prevalence of sleeping disorders in medical students studying in different courses (academic years) in medical faculty №2.

Material and methods. The number of participants in this study were 233 with ages from 18 to 27. The majority of the study was conducted by self-reporting via a combined online survey which included: a) Demographic Questionnaire (included risk factors), b) Sleep habits survey, c) GSAQ - to screen for sleep disorders, d) Current treatment (if any), e) support from the institution survey. The data was analyzed by using Statistica 10.0.

Results. Analyzing the data of regression analysis, we can conclude that the factors that significantly affect the final result of the test for sleep assessment include: parameters of unhealthy sleep habits, presence of sleep disorder symptoms, age and BMI. With an increase in age (0.02) per 1 unit, the overall result of the questionnaire increased by 0.59 ($p<0.04$). With an increase in BMI (0.04) per 1 unit, the overall indicator of the questionnaire increased by 0.72 ($p<0.02$). With an increase in unhealthy sleep habits by 1 unit (0.11) the overall indicator of the questionnaire increased by 0.12 ($p<0.0003$). With an increase in the parameter of sleep disorder symptoms` evaluation by 1 unit (0.42) the overall indicator of the questionnaire increased by 0.13 ($p <0.0000001$).

Conclusions. Therefore, among the parameters that significantly affect the sleep parameters of medical students №2 are the parameter of unhealthy sleep habits, presence of sleep disorder symptoms, age and BMI ($F (5,217) = 1110,0$; $p <0,00001$).

CLINICAL SECTION

CONTENT

RAAS inhibitors in the treatment of COVID-19

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Introduction. RAAS inhibitors are a group of drugs that act by inhibiting the renin-angiotensin-aldosterone system (RAAS). They include angiotensin-converting enzyme(ACE) inhibitors and angiotensin-receptor blockers(ARBs). SARS-COV2 on the other hand, is the causative agent of COVID-19 that has caused the most recent pandemic. ACE converts angiotensin-I to angiotensin-II that promotes vasoconstriction, has pro-inflammatory, pro-thrombotic, and pro-fibrotic effects. In contrast to ACE, ACE2 cleaves angiotensin-II into angiotensin 1-7 which causes vasodilation, has anti-inflammatory, anti-proliferative and anti-oxidative effects. The ACE-2 is a receptor for SARS-CoV-2 virus entry into cells. That made a hypothesis of an increase the number of ACE-2 molecules on the cell surface in response to angiotensin II receptor blockade and, consequently, a theoretical increase in susceptibility to infections and facilitating the penetration of the virus into the cell.
Aim of the study. To evaluate the association between RAAS inhibitors use and COVID-19 and to prove the safety of continuing the application of RAAS inhibitors in COVID-19 patients with cardiovascular comorbidities.
Material and methods. Review of clinical trials based on the relationship between pretreatment with RAAS inhibitors and COVID-19.
Results. Elevated levels of angiotensin II in the blood alone can lead to vasculopathy, and angiotensin II receptor inhibitors have a protective effect on vascular endothelium, including improving microcirculation and preventing thrombosis by reducing tissue coagulation factor. The trial like REPLACE COVID or BRACE CORONA found an extremely significant reduced risk of hospitalization of COVID-19 with ACE inhibitors and an even lower risk for diabetic patients treated with renin-angiotensin inhibitors compared with controls.
Conclusion. Although ACE2 was reported as a site of SARS-CoV-2 entry, there is no sufficient evidence to support the harmful effect of ACE2 overexpression. The actions, induced by ACE inhibition provides more benefit than harm in cardiovascular-comorbid COVID-19 patients. Also, ACE inhibitors attenuate the deterioration of ARDS in COVID-19 patients. Therefore, there’s no reason to discontinue the use of

ACE inhibitors or ARBs in patients with COVID-19 and hypertension or other cardiovascular comorbidities.

Features of psycho-emotional disorders after COVID-19 infection

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Introduction. Simultaneously with the spread of the COVID-19 pandemic, the number of people with anxiety and depressive disorders has increased, including among young people. In addition to the psychosocial stress associated with the pandemic, researchers are studying the direct effects of SARS-CoV 2 on the central nervous system.
Aim of the study. To assess the degree of psycho-emotional disturbance in students after COVID-19 infection.
Materials and methods. The subject of the study were 36 students (20 - men, 16 - women) with age from 20 to 27 years. Psycho-emotional state was assessed using the Hospital Anxiety and Depression Scale (HADS). All students took questionnaires before and after COVID-19 infection. The data was analyzed using the program Statistics 10.0 (StatSoft Inc, USA).
Results. Analyzing the data before COVID-19 infection, subclinical (6-9 points) or clinical (10 or more points) manifestations of anxiety were observed in only 14 (38.89%) students. And subclinical (6-9 points) or clinical (10 or more points) manifestations of depression were observed in 9 (25.0%) students. According to the results of the questionnaire using the HADS scale, we found subclinical (6-9 points) or clinical (10 or more points) manifestations of anxiety in 30 (83.33%) of cases after COVID-19 infection. Also subclinical (6-9 points) or clinical (10 or more points) manifestations of depression in 26 (72.22%) of cases after COVID-19 infection, respectively. These data were statistically significantly higher than those before COVID-19 infection ($p = 0.002$).
Conclusions. The findings of this indicate a serious impact of COVID-19 infection on psycho-emotional state, including the level of anxiety and depression. At the same time, the Hospital Anxiety and Depression Scale is easy to use and allows you to assess the extent of these disorders. The HADS scale can be used as a screening test to detect psycho-emotional disorders in patients with COVID-19.

The Effect of dapagliflozin and sitagliptin on patient with type 2 diabetes mellitus and chronic kidney disease

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Introduction. Poorly controlled type 2 diabetes is associated with an array of microvascular, macrovascular, and neuropathic complications. Microvascular complications of diabetes include retinal, renal, and possibly neuropathic disease. Chronic kidney disease is a common complication of DM2. Therefore, proper selection of antihyperglycemic therapy will help protect the kidneys and stop the progression of CKD, while maintaining a satisfactory hypoglycemic effect.

Aim of the study. To investigate the nephroprotector effect of Dapagliflozin and Sitagliptin in patients with DM2 and CKD I and II degree.

Material and method. The subject of this prospective study were 25 patients with age rage of 48 to 58, who have been suffering from the disease for at least 2 to 5 years. Their previous medication includes Metformin and ACE-inhibitor. Proper physical examination was full carried out in all patient. They're divided into two groups. Group A consists of 12 patients which Sitagliptin was added to their medication while, group B was made up of 13 patients which Dapagliptin was also added to their medication. The Creatinine, Urea, Proteinuria and HbA1c levels were measured before and 24 weeks after administration of Dapagliflozin and Sitagliptin.

Results. 24 weeks after the start of the study, the results shows that, there was an empirical statistical improvement in Glomerular Filtration Rate (GFR) in the group of patients treated with Dapagliflozin compared to the group of patients treated with Sitagliptin. On average, GFR increased by 6 ml / min with DAPA versus 4.17 ml / min with SITA. According to the study, proteinuria decreased on average by 0.114 g / l with DAPA and by 0.083 g / l with SITA that clearly indicates a better nephroprotective effect of SGLT2 inhibitorin patients with DM2 and CKD 1-2 degree than in DPP-4 inhibitors. However, a better hypoglycemic effect was shown by a group A. HbA1c levels decreased on average by 1.01% with SITA and by 0.89% with DAPA.

Conclusion. The significant improvement of GFR in the patients treated with Dapagliflozin proves the efficacy of Dapagliflozin over Sitagliptin in terms of Nephroprotector effect. Hence, the use of Dapagliflozin should prevail over Sitagliptin and is indicated in adults for the treatment of DM and CKD.

The incidence of COVID-induced hepatitis

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Introduction. COVID-induced Hepatitis (CIH) is a new clinical syndrome, which can be defined as a benign new transient hepatitis in a SARS-CoV-2 patients characterized by gradual onset, elevated AST and ALT, dilated sinusoids with lymphocytic infiltration of liver parenchyma, non-obstructive jaundice, stable underlying liver disease and no radiological new hepatobiliary changes. Using GADOUR criteria support the diagnosis. There are many possible underlying pathophysiologies of liver injury in COVID-19 patients, such as a severe inflammatory response, anoxia, drug-induced liver injury, direct cytotoxicity, as well as the reactivation of pre-existing metabolic liver disease. Liver injury can range from elevation of serum AST, ALT, and bilirubin levels to hepatic dysfunction in severe cases of COVID-19.
Aim of the study. To study the pattern of liver impairment in patients with Covid-19 as well as to find acceptable and practical diagnostic criteria of Covid-19 Induced Hepatitis (CIH).
Materials and methods. Extensive literature analysis in PubMed, Cochrane, and Wiley libraries that reviewed liver derangement in COVID-19 for 2020-2021 years.
Results. In a systematic review conducted in September 2020, the cumulative prevalence of acute liver injury was estimated at 23.7 (16.1-33.1) per 100 patients with COVID-19. In another systematic review and meta-analysis, the frequency of liver injury in patients with COVID-19 was reported as 19% (range: 1%-53%). The prevalence of hypoalbuminemia (26.3-30.9 g/L), which is more common among patients with severe disease, was 6%. Also, the pooled prevalence of elevated liver enzymes for ALT, AST, and total bilirubin was estimated to be 18% (13%-25%), 21% (14%-29%), and 6% (3%-11%), respectively. Liver injury is more prevalent among patients with severe COVID-19 than nonsevere cases; its incidence in COVID-19 patients with a fatal outcome is estimated to be between 58% and 78%. It has been observed that the rise in ALT level during COVID-19 is significantly higher in men as well as younger patients with liver injury according to univariate analysis, though that was not by multivariate analysis.
Conclusion. All patients with pre-existing cirrhosis who are at remarkably high risk of severe COVID-19 and death. The grave prognosis with COVID-19 in patients with cirrhosis contrasts with the LT population who have comparably better outcomes. With efficacious SARS-CoV-2 vaccines now available, patients with cirrhosis should be seen as a priority for immunization and the hepatology community should prepare to carefully monitor the immune response in this subpopulation.

COVID 19 (INDIA)

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Introduction. Severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2). The young people Maybe less susceptible to severe forms of illness, suffering milder symptoms, lower morbidity and better prognosis compared to adults BUT they've experienced an upsurge in stress, precipitating loneliness, anxiety and depression. India has one of the highest COVID-19 infection rates in the world with over 2.5 million confirmed cases.

Aim of the study. It is to determine the awareness, knowledge and attitude about COVID-19 and relate the behavior of Indian society, especially when the country is restarting all its economic activities, after the complete lockdown.

Types:- Omicron:- the WHO grouped omicron as a ‘’Variant of Concern’’. This category means the Variant might have higher transmissibility, cause more intense disease, and maybe less likely to respond to vaccines or treatments.

Omicron `stealth’(BA.2):- Scientists call it Omicron BA.2 as opposed to the original Omicron variant, BA.1. At first, scientists thought BA.2 wasn’t as contagious as BA.1 and would soon fade away. That didn’t happen, and starting in January 2022, BA.2 appeared to be at least as easy to transmit as BA.1.

Delta:- The Delta covid Variant in India has been linked as the cause of the devastation of the second wave with its higher rate of transmission and increased severity of the illness.

Alpha:- It is one of the worrying variant which increased severity in females. Women with Alpha strain are at higher risk of requiring intensive care and have a higher fatality rate.

Materials and Methods. Science contributes to the development and optimization of protective equipment and provides technologies and tools for the analysis of SARS-CoV-2, for example, highresolution imaging, for sequencing (PCR) and protein analysis (immunoassays), for viral detection, for vaccine and treatment development and delivery, as well as by contributing advanced materials for clinical instruments, for example, filters for extracorporeal membrane oxygenation (ECMO) machines. SNP (single nucleotide polymorphism).

Results. The use of passive antibodies to treat people with active COVID-19 is also being studied. This involves the production of convalescent serum, which consists of the liquid portion of the blood from people who recovered from the infection and

contains antibodies specific to this virus, which is then administered to active patients This strategy was tried for SARS with inconclusive results. An updated Cochrane review in May 2021 found high certainty evidence that, for the treatment of people with moderate to severe COVID-19, convalescent plasma did not reduce mortality or bring about symptom improvement. There continues to be uncertainty about the safety of convalescent plasma administration to people with COVID-19 and differing outcomes measured in different studies limits their use in determining efficacy.