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Thesis Title	Impact of war on mental health of women			
Year	2020		CD: 1422	
Abstract	<p>Background: Women are the silent sufferers of war where it impacts them differently. For every man who suffers, there is a related woman that will takes care of him and faces difficulties with him. Women's mental health situation is affected by multiple psychological and social factors and is associated with rapid social changes, gender discrimination and stressful conditions. Objectives: is to explore the prevalence of anxiety, depression and suicidal thoughts / attempts among Iraqi women post war.</p> <p>Methodology: we conducted a cross sectional study in Baghdad city among 1000 women from January to September 2020. Mental condition was addressed through assessing anxiety and depression on symptomatic basis using standard questions from the Diagnostic and Statistical manual of Mental disorder (DSM-5) scale.</p> <p>Results: Of 1,000 women, 911 (91.1%) have experienced war-related trauma since 2003, either personally or as a family member. Anxiety symptoms were reported in 397 (39.7%) women while depressive symptoms were reported by 342 (34.2%) women.</p> <p>Suicidal thoughts / suicide attempts were detected by 358 (35.8%) women. About 30.3% of the studied women had working children while 38.7% of them had an early married girl in their households. There was a clear impact of the general stress related to the war on the social relationships of the participants. More than two-thirds of the respondents experienced difficulties in their social life and their relationship with the environment. The majority of the studied women had negative expectations regarding their future in Iraq, and as a result, more than half of the respondents expressed their intention to emigrate outside the country. Conclusion: Anxiety and depression are prevalent among Iraqi women in post war period. Suicide thoughts/ suicidal attempts are increasing compared to the previous era. Community support plays an important role in alleviating war-related trauma and stress on a woman's mental health.</p>			

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Thesis Title	Frequency of Hepatitis C Viral Infection In relation with Interleukin 12 and 18 among thalassemia Major patients in Baghdad			
Year	2022		CD: 1419	
Abstract	<p>Hepatitis C virus (HCV) is responsible for nearly 80 - 90% of post-transfusion hepatitis in beta-thalassemia patients. This study aimed to evaluate the rate of HCV infection in a set of beta-thalassemia patients in Baghdad and to assess the serum levels of IL-12, IL-18, and serum liver enzymes levels among β-thalassemic patients infected with HCV .</p> <p>Methodology :</p> <p>A total of patient samples 150 sample included in this study, 70 male; 70 female in Baghdad, 140 beta-thalassemia patients, and 10 healthy control group (9 male ;1 female) who were attended Al Karama teaching hospital and Ibn AL-baladi hospital maternity & children's hospital; aged 4-46 years, from January to September, 2020. Blood samples collected from the study groups and sera were separated and then tested for anti-HCV Ab by ELISA and confirmed by western blot technique, IL-12 concentration, IL-18 concentration, liver enzymes</p>			

AST, ALT, and ALP .

Results :

% 17.9) (Twenty five out of 140 of the major thalassemic patients were positive for HCV antibodies . More than half of HCV- positive thalassemic patients were in age group 21-30 yrs old (56%, n=14/25) and females are more frequently infected with HCV (56%, 14/25) than males (44%, 11/25). The median of serum concentrations for IL-12 in HCV- positive thalassemic patients were (0.41) pg/ml was lower than the corresponding median of control group while the median concentration of IL-18 in sera of HCV-

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positive thalassemia major patients (17.07) pg/ml, was significantly higher than the corresponding median in control group(p<0.001). The median concentration of AST in sera of HCV- positive thalassemic patients (71.0 U/L) was significantly higher than the equivalent median in HCV- negative thalassemic group and control group respectively while the median ALT for HCV- positive thalassemic, HCV- negative thalassemic , and control groups were 32.0 U/L, 24.0 U/L, and 30.0 U/L, respectively. The medians of ALP concentrations for the same groups were 84 U/L, 121 U/L, and 85 U/L , respectively. The correlation coefficient for anti-HCV Abs concentrations and their corresponding IL-12 concentrations was 0.084; while for the anti HCV antibodies with IL-18 was 0.0979

Conclusion :

The prevalence of HCV infections was high among β -thalassemia major patients in Baghdad, especially among young adult patients. ELISA technique is a perfect choice of detection anti-HCV Abs with very high sensitivity. The infected patients have decreased IL-12 concentration, elevated IL-18 concentration, elevated serum relatively normal Serum ALT .

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Thesis Title	Assessment of carpal tunnel syndrome severity by ultrasound and electrodiagnostic study			
Year	2022		CD: 1418	
Abstract	<p>Carpal tunnel syndrome is a common peripheral entrapment neuropathy. Nerve conduction study is the gold standard for diagnosis. However, nerve conduction study is not always abnormal in carpal tunnel syndrome. Besides its relatively high cost, which requires searching for alternative modalities, such as ultrasonic examination, it is helpful as a diagnostic method for carpal tunnel syndrome. The main advantages of ultrasonography are simple, quick, non-invasive, and economical. The study aims to investigate the role of ultrasound and electrodiagnostic study in diagnosis of carpal tunnel syndrome and determining disease severity.</p> <p>This is a case-control study that was conducted in Al-Shaheed Ghazi Al-Hariri teaching hospital, Iraq, Baghdad in period from January/2021 to July/2021. , which included 50 CTS patients (hands) and 50 healthy subjects (50 hands).</p> <p>Nerve conduction studies were performed for all included hands, and ultrasound was used to measure the cross-sectional area of the median nerve. The association of the cross-sectional area with the disease severity was calculated,</p>			

while the receiver operating characteristic curve was used to find out the diagnostic value of ultrasound in discrimination between patients and controls and in discrimination between different severities of the disease. The results were classified into mild (sensory fibers affected), moderate (sensory and motor fibers affected), and severe (severe motor fiber affected) according to the local severity scale of neurophysiological reference values, out of 65 affected hands, 40 (61.15%) hands mild disease, 19 hands (29.23%) demonstrated a moderate disease and 6 hands (9.23%) had severe disease. The mean cross-sectional area of the median nerve in mild, moderate, and severe cases was $11.21 \pm 1.22 \text{ mm}^2$, $15.09 \pm 0.14 \text{ mm}^2$, and $17.88 \pm 0.21 \text{ mm}^2$, respectively, with highly significant differences between the three categories. Furthermore, all three categories had a higher cross-sectional area than control ($8.73 \pm 0.45 \text{ mm}^2$) with highly significant differences. In patients, the cross-sectional area demonstrated a significant positive correlation with each median nerve. sensory distal latency ($r = 0.718$, $p < 0.001$), median nerve motor distal latency ($r = 0.818$, $p < 0.001$) and age ($r = 0.316$, $p = 0.01$) and a negative significant correlation with median nerve conduction velocity ($r = -0.837$, $p < 0.001$). The sensitivity and specificity of ultrasound in the context of discrimination between patients and controls at a cut-off value of cross-sectional area = 10 mm^2 were 92% and 100%, respectively. The cross-sectional area of the median nerve is enlarged in patients with carpal tunnel syndrome, and the degree of enlargement significantly correlates with the nerve conduction study parameters of disease severity. However, ultrasound of carpal tunnel syndrome of the median nerve has an excellent diagnostic value in the discrimination between patients and controls, with a sensitivity and specificity of 92% and 99%, respectively. The optimum cut-off value is 10 mm^2 . Also, ultrasound can effectively discriminate between mild,

	<p>moderate, and severe cases of carpal tunnel syndrome with sensitivity ranges between 83%-100% and specificity 94%-100%. The optimal cut off values of the crosssectional area ranges between 13.2-16.2 mm²</p>
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Thesis Title	Vitamin D Status among a sample of Iraqi Adults: Geographic and Demographic effects			
Year	2022		CD: 1416	
Abstract	<p>Vitamin D status is currently assessed by measuring circulating 25(OH)D, which exists either free in the circulation or bound to albumin or the vitamin D binding protein, serum 25OHVD is the main circulating vitamin D metabolite that is considered to best indicate overall vitamin D status. Many factors affect the level of vitamin D like latitude, seasonal variation, skin colour, pollution, age, gender, food type, physical activity, BMI, WC and others, also deficiencies of vitamin D are related with many disease states like Hypertension, Diabetes Mellitus, Multiple Sclerosis, obesity, auto immune diseases and others.</p> <p>Objectives : To determine the normal range of serum levels of total 25 hydroxyvitamin D (25OHVD) in Iraqi adult healthy subjects and to relate its level with demographic profile and socioeconomic status. In addition, to investigate the relationship between total 25OHVD and its free fraction, albumin, calcium, inorganic phosphate and alkaline phosphatase.</p> <p>Subjects, Materials and Methods: This cross sectional control study was carried out at Department of Biochemistry, College of Medicine, University of Baghdad and the samples were collected from three governorates (Baghdad, Al-Anbar and Al-Basrah), Iraq, during the period from August 2019 to January 2020. It included 819 adult subjects apparently healthy, of them 87 subjects were taken vitamin D supplement and 83 were pregnant women. Investigations included serum measurement of total 25OHVD in all 819 included individuals and after excluding supplemented and pregnant ones (n=649). Age, gender, marital state, sunshine exposure (%), hours of exposure/day, percentage of body surface area exposed, body mass index</p> <p>XI</p>			

(BMI) subgroups, waist circumference (WC) subgroups, educational degree, season variation through monthly sample collection, sport type (A: one type of sport, B: two type, C: three or more types, D: no exercise), sport time (A<30 minute, B=30m and C>30m), diet type (A: meat, egg and dairy products, B: meat and egg and C: others), blood pressure, geographic factor (governorate) were measured and / or calculated and the levels of 25OHVD were studied according to each of these factors. In addition, Free 25(OH)D, albumin, total calcium, inorganic phosphate and alkaline phosphatase were measured in a random sample (n=88) of studied individuals (n=649). Total and free 25OHVD were measured by using the Enzyme-Linked Immunosorbent Assay

technique, while the other parameters by spectrophotometer.

Results:

The mean \pm SD level of 25OHVD in total (n=819) studied Iraqi subjects was (17.58 ± 8.29 ng/ml). The mean value of 25OHVD after excluded subjects (n=649; 16.29 ± 8.22 ng/ml), with women were significantly defficient than men (15.76 ± 6.89 ng/ml, 17.14 ± 6.85 ng/ml; $p < 0.01$ respectively). However, there was no significant differences in mean values of serum 25OHVD levels among studied governorates, subgroups of BMI, WC, marital status, smokers and nonsmoker and subgroups of age. The mean value of serum 25OHVD levels of individuals who elevated blood pressure was significantly deficient that of normotensive

ones ($p < 0.001$), also in January ($p < 0.001$), October ($p=0.01$) and November ($p < 0.001$) were significantly lower than that of August as well as that of January and November were significantly lower than that of September ($p = 0.02$). The mean value of T25OHVD levels in diet type of

group B ($p=0.001$) and group C ($p < 0.001$) were significantly less than group A, sport type of group A ($P < 0.001$), C ($P < 0.001$) and D ($P < 0.001$)

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were significantly lower than group B, sport duration\day of group A ($P=0.001$) and C ($P < 0.001$) were significantly lower than group B.

There were significant positive correlation between total 25OHVD and sun exposed surface area ($r = 0.14$, $P = 0.001$), sun exposure duration ($r = 0.12$, $P = 0.001$) and with sun exposure area % ($r = 0.14$, $P = 0.001$). There was no significant differences in mean (\pm SD) values of serum T25OHVD levels and sun exposure area % between pregnant women and nonpregnant ones. The mean of serum 25OHVD levels of non-supplemented subjects was significantly lower than that of supplemented ones ($p < 0.0001$), although the mean of sunshine exposure area % of VD

supplemented subjects were significantly lower than that of nonsupplemented ones ($p < 0.0008$). The mean (\pm SD) values of serum total and free 25OHVD of subjects (n=88) were (18.12 ± 8.44 ng/ml) and

(7.25 ± 5.50 pg/ml, respectively). There was weak positive correlation between T25OHVD and F25OHVD but did not reach significant level $r =$

0.19 , $P = 0.08$).

Conclusion

The mean (\pm SD) of serum total 25OHVD in Iraqi healthy subjects was $16.29 (\pm 8.22)$ ng/ml reflecting the actual body status of this vitamin with lower concentration in women (15.76 ± 6.89 ng/ml) than in men (17.14 ± 6.85 ng/ml). Type and time of sport and diet type were the major vitamin D dependent factors. Supplementation of vitamin D was superior

to sun exposure in providing the daily requirement of vitamin D in Iraq. Measurement of free 25OHVD which is costly has no advantage over that of total one in healthy subjects.

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Thesis Title				
Year	2022		CD: 1415	
Abstract	<p>Chronic Hepatitis B (CHB) is a serious consequence of post hepatitis B virus infection, although the chronic rate inverses with the age but might be linked to a significant percentage of deaths associated to cirrhosis and liver cancer. Hepatitis B virus (HBV) serology and measurement of hepatocytic enzymes with the viral load can expect disease prognosis and response to medications. HBV genotyping is vital for extra epidemiological studies. During HBV persistent infection, the absence of a proofreading role leads to a higher rate of mutation. The most common mutations are in the basal core promoter (BCP) and precore (PC) regions, which reduce and abolish Hepatitis B e antigen (HBeAg), respectively. HBeAg states to an active viral replicative event and pointed to more infectivity to others. As a result, the virus may be able to evade the immune system, enhancing the persistence of HBV infection.</p> <p>The current study aimed to determine the correlation of hepatitis B viral core mutations in relation to genotypes in different stages of chronic Hepatitis B viral infections and to determine the impact of HBeAg status in chronically infected patients on various baseline tests. A cross sectional study including 90 patients (48 males and 42 females) who were recruited from Gastroenterology and Hepatology Teaching Hospital, Baghdad, Iraq. The study was carried out at the department of Microbiology, College of Medicine, University of Baghdad during the period between January 2020 and March 2021. Five to ten ml of blood sample was collected and then plasma was obtained and stored at - 20°C/-80°C till used. Studied group had positive HBsAg for more than six months and were not on antiviral treatments. Other routine investigations were done for each participant such as liver function test, serological tests for HBV markers. HBV viral load and genotypes detection using Real time- PCR, finally isolates of core gene that were sent for sequencing.</p> <p>II</p> <p>In this study, HBeAg was positive in 9 (10%) out of 90 and negative in 81 (90%) out of 90 patients. There was significant association between</p>			

HBeAg serostatus and HBV-DNA viral load (p value =0.042), as more than half of the cases (55.6%) had high levels of HBV serum DNA (≥ 2000 IU/ml) and positive HBeAg compared to 24.7% of cases with negative HBeAg. No statistically significant differences were observed regarding HBeAg status with demographic and other baseline characteristics. In the present study, genotype D was the most predominant in 64 out of 90 (71.1%) of samples while mixed D and A were (2.2%). There was highly significant association between HBV genotypes and HBV DNA load (p=0.001) but not with other studied characteristics. The percentage of HBeAg negativity in genotype D patients was higher in comparison to positive HBeAg. HBV genotype D is associated with elevated ALT and AST (20.3% and 23.4%) respectively.

Out of 66 HBsAg positive cases with detected HBV-DNA viral load there were only 35 samples positive for PCR amplification of HBV core gene with strong positive bands that were sent for sequencing. All nucleotide sequences reported in this study have been discovered for core gene partial sequencing specifically for D genotype were further aligned and only ten sequences showed 97-100% similarity and 4 newly registered sequences that were deposited in the National Center for Biotechnology Information GenBank database with definition numbers of (Ay149881, Ay149882, Ay149883, Ay149884) and accession numbers of (LC610896, LC610897, LC610898, LC610899) respectively. In this study, one isolate from a newly registered sequences (Ay149883, sr=LC610898) of precore mutation was identified out of 35 isolates (2.86%). Nucleotide mutations in genotype D, including precore stop codon variant for HBeAg were G1839A, A1901G, C1980A, T2015A and T2094A.

Phylogenetic tree of HBV precore/core -gene partial sequence constructed using 4 isolates from this study along with 19 Genbank reference sequences.

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In conclusion, the findings of the current study suggest that most of studied CHB patients are HBeAg negative with the predominance of D genotype suggesting long term monitoring for disease progression are needed. Five unique mutations in the precore region were identified in one sample with HBeAg negative, co-infected with HDV, associated with high viral load and elevated liver enzymes, indicating the existence of precore stop codon variant aided in the absence of HBeAg and the disease was in reactive phase.

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Thesis Title	The Role of D.glucan Antigen and Antifungal Multidrug Resistant Genes (CDR1 and MDR1) in Patients with Candidiasis			
Year	2022		CD: 1417	
Abstract	<p>Background : Invasive candidiasis, has been increasing in incidence in immunocompromised patients in recent years. Despite our increased antifungal arsenal, fungal strains that are less sensitive and resistant to broad-spectrum antifungals emerge as a result of their overuse and long-term immunosuppressive therapy. These opportunistic fungal infection risk factors result in a significant amount of morbidity and mortality.</p> <p>Aims of the study: Determination of the level of serum beta D. glucan by ELISA test in the samples of leukemic patients who recumbent in hematology oncology department , Identification of Candida species and determination of the Candida species susceptibility to Fluconazole , Voriconazole, Caspofungin, Micafungin, Amphotericine B , Flucytosine by VITEK 2 system and Detection of CDR1 and MDR1 genes that responsible for some of the antifungal resistance .</p> <p>Materials and methods : This case control study included one hundred fifty immunocompromised patients divided into two groups , sixty from the Hematology Oncology Center (HOC patients) , and thirty eight out of ninety from various floors of Baghdad Teaching Hospital (Mycological wards patients) , the majority of which were with respiratory infections symptoms. The duration of work was between November 2019 to March 2021. The place of work was in the Clinical Communicable</p>			

disease unit in the College of Medicine University of Baghdad . Ninety samples were sent to the medical Mycology Unit at Baghdad teaching hospital . The samples taken then transported to the laboratory to be processed and cultured before being examined. The serum samples were frozen for immunological analyses, while the remainder were examined using traditional methods.

Results: Out of sixty samples (sera) were collected from Hematology Oncology Center patients with respiratory symptoms showed that 49 (81.7%) of D-glucan cases were positive .

In mycological wards patients the VITEK Identification showed that *C. albicans* represents 10(27.78%) , *C. ciferrii* 6(16.67%) , *C. dubliniensis* 5(13.89%) , *C. parapsilosis* 4(11.11%) , *C. tropicalis* 3(8.33%) , *C. lipolytica* , *C. famata* and *C. lusitaniae* 2(5.56%) , 1 isolate for *C. rugosa* and *C. krusei* . While the antifungal susceptibility test was *C. albicans* , *C. ciferrii* , *C. parapsilosis* , *C. tropicalis* and *C. famata* isolates were sensitive to Fluconazole , Voriconazole , Caspofungin , Micafungin , Amphotericin B and Flucytosine. *C. dubliniensis* was resistant to flucytosine , *C. lusitaniae* was resistant to Amphotericin B and *C. krusei* isolate was resistant to Caspofungin , Amphotericine B, Flucytosine . *C. lipolytica* and *C. rugosa* isolates were intermediate to Flucytosine .

The molecular detection was done for 20 samples out of 38 which were positive culture for *Candida* spp. only reported that MDR1 gene was detected in all *Candida albicans* 5 (100%), *C. ciferrii* 3 (100%), and *C. dublinensis* 4 (100%), *C. krusei* 1 (100%), *C. lusitaniae* 1 (100%), otherwise it was not detected in *C. famata* and *C. lipolytica*, *C. parapsilosis*, *C. rugosa* and *C. tropicalis*. While, the frequency of CDR1 positive in *Candida* spp. was 4/5 (80%) were positive in *C. albicans*, 2/3 (66.67%) in *C. ciferrii* and 3/4 (75%) in *C. dubliniensis* otherwise all were negative for this gene.

Conclusions: Enzyme Linked Immunosorbent Assay test was the more sensitive and a good reliable test used to detect the beta D- glucan antigen in the HOC patients . In the Mycological wards patients the VITEK identification test showed that the most common species was *C. albicans* , *C. ciferrii*, *C. dublinensis* , and some other rare type of yeasts responsible of respiratory infection were seen in immunocompromised patients . Flucytosine was the most resisted drug then Amphotericin B and Caspofungin . The most resistant species were *C. krusei* , *C. lusitaniae* and *C. dublinensis* .

The molecular detection reported that MDR1 gene was detected in all *Candida albicans* , *C. ciferrii* , and *C. dubliniensis* , *C. krusei* , *C. lusitaniae* , otherwise it was not detected in *C. famata* and *C. lipolytica*, *C. parapsilosis*, *C. rugosa* and *C. tropicalis*. While, CDR1 was positive in *C. albicans*, *C. ciferrii* and *C. dubliniensis* otherwise all were negative for this gene in this study .

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Thesis Title	Programmed Death Ligand 1 (PDL- 1)Immunohistochemical Expression with Kirsten rat sarcoma 2 viral oncogene homolog(KRAS) and murine sarcoma viral oncogene homolog B (BRAF) mutations detection by Polymerase chain reaction (PCR) In Colorectal Carcinoma, A Clinopathological study			
Year	2022		CD: 1453	
Abstract	<p>Colorectal cancer is the second most common cause of cancer death in the Western world and its incidence is increasing.</p> <p>Most cancers of the colon and rectum arise in adenomatous polyps. Genetic alterations of CRC are basically attributed to genomic instability, which can operate three general ways: chromosomal instability (CIN), microsatellite instability (MSI) and CpG island methylator phenotype (CIMP) known as familial CRC.</p> <p>Programmed death-ligand 1(PD-L1) also known as cluster of differentiation 274 (CD274) or B7 homolog 1 is a transmembrane protein that has been speculated to play a major role in suppressing the immune system during particular events such as pregnancy, tissue allografts, auto immune disease.</p> <p>Kirsten rat sarcoma 2 viral oncogene homolog (KRAS): A gene that makes a protein called KRAS, which is involved in cell signaling</p>			

pathways that control cell growth, cell maturation, and cell death. The natural, unchanged form of the gene is called wild-type KRAS. Mutated (changed) forms of the KRAS gene have been found in some types of cancer, Knowing whether a patient's tumor has a wild-type or mutated KRAS gene may help plan cancer treatment. The mutations in KRAS arise after the loss of APC (the tumor suppressor gene) during colon cancer this protein plays important roles in cell division, cell differentiation, and the self-destruction of cells (apoptosis). BRAF(murine sarcoma viral oncogene homolog B): Is a human gene that encodes a protein called B-RAF, this protein is involved in sending signals inside cells which are involved in directing cell growth Transcribed data from colorectal cell lines with mutations in KRAS or BRAF demonstrated that glucose deprivation may drive the acquisition of KRAS pathway mutation in Tumors, and that glycolysis inhibitors suppress the growth of those tumor cell line.

Aim of the Study

- 1- Detection of PD-L 1 in colorectal carcinoma by immunohistochemical method.
- 2- Detection of KRAS and BRAF mutations by PCR in colorectal carcinoma.
- 3- Correlation between the immunohistochemical expression of PD-L1 and KRAS, BRAF mutations with clinicopathological parameters (age, gender stage and grade).
- 4- To detect any correlation between PDL-1 expression and KRAS, BRAF gene mutations.

IV

Materials and Methods

Retrospective study of 50 cases with colorectal carcinoma patient colectomy specimens. (27 male and 23 female) were selected randomly covering the period from 2018 till 2019. They were collected from the

Gastroenterology and Hepatology Teaching Hospital and from Teaching laboratories / Medical City– Baghdad and from Private labs.

Age, gender, site of tumor, grading and staging were collected for all cases, PD-L1 immunohistochemical study was performed to detect its expression in colorectal carcinoma.

DNA was extracted from the formalin-fixed, paraffin-embedded tumor samples, and K-RAS mutations in codons 12, 13, and 61,117 were identified using polymerase chain reaction (PCR), and BRAF evaluated for V600E, each individual case evaluated for BRAF and K RAS.

Results

The age of the 50 cases ranged between (22-80) years with a mean of 56.76 years \pm SE 13.092 and a median of 55.50 years. Out of the 50 patients 27 (54.0%) were males and 23(46.0%) were female. Male to female ratio was 1.7:1.

Thirty four Patients have had moderately differentiated grade II (68%) was the most common with predominance of left colonic tumors 33(66.0%).and 27(54,0%) patient have stage 3 and 33(66%) of CRC patients presented with T3.

Regional lymph node involvement was seen in (34) patients and more commonly N2.

The 50 patients studied for PDL-1 marker showed only 11 (22%), 8 of them were female. No statistically significant association between PDL-1expression and age, sex, stage, grade, lymph node status.

Positive K-RAS mutations were detected in 15 (30%) patients 13 of these cases show codon (12) and 2 of them show (117) codon, there were statistically significant association between KRAS mutation and lymph node state p value 0.042.









BRAF mutations were detected in 2 patients (4.0%) with v600E codon. No statistically significant association between BRAF and age, sex, stage, grade, lymph node status

Conclusion

1- The 50 patients studied for pdl-1 marker showed only 11 (22%) PD-L1 expression increases as the ages of the patients increase, and with presence of lymph node status.

2- The 50 patients studied for KRAS gene showed 15 (30%) and for









	BRAF gene showed only two (4%). 3- There were statistically significant association between KRAS mutation and lymph node state p value = 0.042.
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Thesis Title	DETERMINATION OF SALIVARY ALPHAAMYLASE LYSOZYME, MELATONIN AND TOTAL COUNT OF MUTANS STREPTOCOCCI AND CANDIDA AMONG COVID-19 PATIENTS			
Year	2022		CD: 1457	
Abstract	<p>COVID-19 pandemic had a significant impact on many aspects of people's lives when these people commended quarantine and lockdown to prevent the virus from spreading which had a major effect people's mental health, depression and stress. Many internal and environmental causes contribute to this stress, which has a detrimental impact on the body's homeostasis. As a result, stress may have an impact on the body's ability to conflict with pathogens using its energy. Aims of this study the present study were to assess the differences in the level of salivary alpha amylase, salivary lysozyme as stress biomarkers and melatonin and their relation with total viable count of salivary mutans streptococci and candida among COVID-19 group compare to COVID-19 healthy control</p> <p>Material and Methods:</p>			

84 samples were collected from adults who have been divided into two groups: the COVID-19 group consisting of 42 patients and the COVID-19 free group which consists of 42 subjects. All subjects undergo PCR tests confirm their healthy status, collection of unstimulated saliva was done Laboratory investigations were carried out to measure the total viable count of salivary bacterial flora by culturing on Mitis Salivarius Bacitracin Agar and Sabouraud Dextrose Agar salivary. Alpha-amylase, lysozyme and melatonin ELISA kits had been used to estimate their values.

Results:
The statistical analysis of the present study showed non significant difference in salivary alpha amylase (U/ml), and total viable count of salivary mutans streptococci in COVID-19free group than in COVID-19 group showed high significant difference in salivary lysozme, melatonin and candida between COVID-19 group and COVID-19 healthy controls group was found There is non significant salivary alpha amylase and total viable count of salivary mutans streptococci between COVID-19 group and COVID-19 heaihty control group was found There is non significant correlation of salivary alpha amylase with salivary lysozyme, melatonin ,total viable count of salivary mutans streptococci and candida between COVID-19 group and COVID-19 healthy control group was found
There is non significant correlation of salivary lysozyme with melatonin ,total viable count of salivary mutans streptococci and candida in COVID-19 healthy control group was found There is non significant correlation melatonin with total viable count of salivary mutans streptococci COVID-19 group and COVID-19healthy control group and total viable count of salivary mutans with candida.

Conclusion:
Salivary alpha-amylase increased in the Covid-19 group more than in the Covid-19 healthy control group. Salivary lysozyme decreased among covid-19 group more than in the covid-19 healthy control group. Salivary melatonin decreased in among covid-19 group more than among the covid-19 healthy control group. The Total Viable Count of Salivary Mutans streptococcus increases Non-significant in the covid-19 group more than covid -19 healthy control group.

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Thesis Title	INVESTIGATING SOME PHYSICO-MECHANICAL PROPERTIES OF MAXILLOFACIAL SILICONE AFTER ADDITION OF STRONTIUM TITANATE NANOPOWDER			
Year	2022		CD: 1458	
Abstract	<p>Background: Prosthetic devices have been commonly used to restore defects of congenital or acquired origin as cancer or trauma. Although both patients and prosthodontists accept silicones, additional improvements are needed to increase their performance. Researches had been conducted to produce a new generation of polymer with nanofiller integrated into the polymer, resulting in better material that combines strength of nanofiller with the flexibility of the polymer. The study aim to evaluate the effects of strontium titanate nanopowder (SrTiO₃ NP) addition on some properties of VST-50 maxillofacial silicone.</p> <p>Materials and Methods: Two weight percentages (1 wt% and 1.5 wt%) were used as determined by the pilot study, which yielded most suitable results. A total of 180 specimens were prepared and divided into control (without nanofiller) and two experimental groups (1 wt% and 1.5 wt% SrTiO₃ NP). Each group was subdivided into seven identical subgroups. For each subgroup, ten specimens were utilized for each test (Tensile strength, elongation percentage, tear strength, shore A hardness, surface roughness, UV absorption, water absorption and solubility). Significance level was set at p=0.05 when statistical analysis was performed.</p> <p>Results: Both experimental groups revealed highly significant increase in tensile strength, tear strength and surface roughness (P<0.01). The 1.5 wt% group revealed a highly significant increase in hardness (P<0.01), while 1 wt% group revealed a significant increase (P<0.05). Both experimental groups showed highly significant decrease in elongation percentage (P<0.01). There was highly significant increase in water absorption and solubility of experimental groups as well as in UV light absorption when compared to control group (P<0.01).</p> <p>Conclusion: Addition of SrTiO₃ nanopowder to VST-50 silicone</p>			

	enhanced tear strength and tensile strength particularly at (1 wt%). Hardness and surface roughness were increased, but only to clinically acceptable levels. Percentage of elongation was decreased significantly. Water absorption, solubility, and UV absorption levels all increased.
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Thesis Title	Dobutamine Stress Echocardiography in Iraqi Patients. Single Center Experience			
Year	2016		CD: 1459	
Abstract	<p>Background: Coronary artery disease is one of the major causes of mortality and morbidity in the world. Coronary artery disease is characterized atherosclerosis in the epicardial coronary arteries. The reduction in coronary artery flow may be symptomatic or asymptomatic, occurs with exertion or at rest, and culminate in ,depending on obstruction severity and the rapidity of development. Dobutamine stress echocardiography is a noninvasive ultrasound imaging technique that allows evaluation of cardiac conditions that cannot detected by resting echocardiographic examination.</p> <p>Aim of the study: To analyze the indications, results and complications of dobutamine stress echocardiography in a single cardiac center in Iraq</p> <p>Patients and method: A cross sectional study was conducted at Ibn-Al</p>			

Nafees hospital during the period between September 2015 and June 2016 and a sample of 100 patients was selected.

Results: The mean age of patients was (57 ± 8.4) years; male gender (78%) and female (22%),

About half of the patients (58%) were hypertensive, (54%) were diabetic, (38.3%) were hypertensive and (68%) had hyperlipidemia, (64%) were smoker and (48 %) had a family history of coronary heart disease.

The findings of Dobutamine stress echocardiography for viability study were:

biphasic response 57 %, monophasic response was 11.6 % and non-phasic response was 31.9 %.

84.7% of the referred patients for viability test were within the period of 3 months after myocardial infarction.

23 % of Patients were referred for detection of myocardial ischemia and

30.4% of the patients had positive dobutamine stress echocardiography.

5 % of patient were referred with left ventricular dysfunction for evaluation of

low gradient aortic stenosis by low dose dobutamine stress echocardiography

and four patients had positive test and had developed severe aortic stenosis.

The adverse effect of dobutamine stress test was 16% patients developed

chest pain and 12 % of them had headache, dizziness and nausea, 1 % severe

hypotension, 1% severe hypertension and 2 % ventricular arrhythmia's

Dobutamine stress test discontinuation criteria was: 90 % Patients of patients

reached 85% of target heart rate and 25 % of them had required Atropine

addition, 5% Patients developed new regional wall motion abnormality ,2%

Patients had developed hypotension ,1% Patients had developed severe hypertension and 2% Patients had developed ventricular arrhythmias,

Conclusion: Dobutamine stress echocardiography is a feasible, cost-effective,

and widely available imaging study that can be used in evaluation of different

cardiac cases. The incidence of adverse effects of dobutamine stress echocardiography are small and usually self-limiting.

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Thesis Title	MICRORNA-126 AND LEUKEMIA STEM CELL ADHESION MOLECULES (CD44, OSTEOPONTIN, GPR56 AND CD184): CORRELATION WITH RESPONSE TO REMISSION INDUCTION IN ACUTE MYELOID LEUKEMIA			
Year	2022		CD: 1460	
Abstract	<p>Acute myeloid leukemia (AML) results from genetic alterations in normal hematopoietic stem cell or its progenitors leading to the development of an autonomous clone large enough to dominate bone marrow activity and lead to marrow failure. The advent of flow cytometry and its application in various hematology fields have been a vital leap in the diagnosis, risk stratification and treatment choice of hematological disorders, in a short time and with a wide range of options. Many surface markers have been studied for their role in the initiation and maintenance of leukemia as well as their diagnostic, prognostic, and therapeutic relevance. MicroRNAs (miRNA, miR) are short non-coding nucleic acid sequences that regulate post-transcriptional gene expression by basepairing with their target mRNAs. MiRNAs can be circulating in extracellular fluids carried to target cells by extracellular vesicles or bound to specific proteins. Extracellular miRNAs might act as chemical messengers to mediate intercellular communication. Circulating miRNAs</p>			

have been used in the diagnosis, prognosis and treatment of various cancers including AML.

Aim of this study:

To assess the expression of CD123, CD44, CD184, GPR56 and osteopontin (OPN) on CD34+CD38- blast cells to clarify their relationship

with the response to induction therapy, to measure the expression of plasma circulating miR-126-3p and miR-423-5p in AML and compare their expression with response to induction therapy.

SUMMARY

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Patients and Methods:

A cohort of 54 patients older than 13 years with newly diagnosed de novo AML were included in this study. Patients were recruited from Baghdad Teaching Hospital, Medical City during a period extending between December 2018 and September 2019. Thirty-five apparently healthy age- and sex-matched individuals were enrolled in this study as a

control group for the purpose of comparison with miRNA expression.

The expression of CD34, CD38, CD123, CD184, GPR56, and osteopontin was assessed by multi-color flow cytometry. To determine the positivity of the studied markers, a cut-off value of 10% was used for

CD34 while 20% was used for the other markers. The expression of CD123, CD184, CD44, GPR56 and osteopontin on CD34+CD38- blast cell population was calculated. French American British (FAB) classification system was used in this study. The relative expression of plasma circulating miR-126-3p and miR-423-5p was measured by reverse

transcriptase PCR (RT-PCR) and calculated using Livak's Method ($2^{-\Delta\Delta Ct}$). Patients were followed up for morphological response four weeks

after the start of induction therapy, and after two years of diagnosis for the 2-year survival rate. Patients has ultimately been divided into two groups based on their response to induction therapy: the complete remission (CR) group, and the non-remission (NR) group.

Results:

The peak incidence was found in the age groups 14-20 years, >30-40 years, and >50-60 years. The male to female ratio was 1:1.

Regarding

the FAB classification, M4 was the most common subtype. The CR rate was 40% while NR rate was 60%.

Regarding leukemia stem cell phenotypes, CD34+CD38-CD123+, CD34+CD38-CD44+, CD34+CD38-CD184+, and CD34+CD38-CDGPR56+,

CD34+CD38-OPN+ LSC phenotypes were expressed in almost all

studied

SUMMARY

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patients. However, no statistically significant relationship was found between their expression neither with response to induction therapy nor

with the 2-year OS. Interestingly, there was a significant positive correlation among the expression of CD34+CD38-CD123+, CD34+CD38-

CD44+, CD34+CD38-CD184+, and CD34+CD38-CDGPR56+ LSC phenotypes. We further studied the expression of CD44, CD184, GPR56 and OPN on CD34+CD38-CD123+ LSCs. There was a significant relationship between the expression of GPR56 on CD34+CD38-CD123+ LSCs and poor response to induction therapy.

The expression fold change of miR-126-3p was 1.73 (p= 0.010).

The expression fold change of miR-423-5p was 2.13 (p=0.003). No significant correlation was found between the expression of miR-126-3p and miR-423-5p in the studied AML patients, (r=0.094, p=0.22).

Furthermore, no relationship was found between the expression of the studied miRNAs and response to induction therapy or the 2-year survival status.

Conclusions:

Leukemia stem cell phenotypes were expressed in almost all AML cases and were not correlated with response to induction therapy or 2-year survival. The expression of GPR56 on CD34+CD38-CD123+ LSCs was associated with a poor response to induction therapy.

There was a significant difference in the expression of miR-126-3p and miR-423-5p between controls and patients. There was no relationship

between the expression of the studied miRNAs and response to induction

therapy or the 2-year survival rate.

