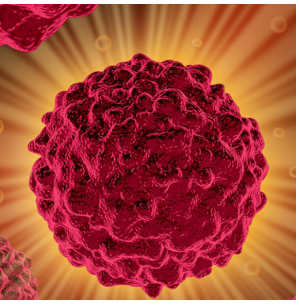
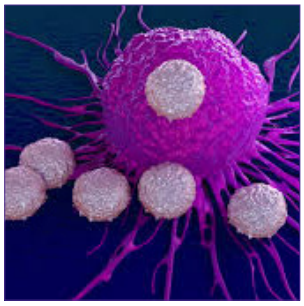
Poster Presentation

Nursing Education 2019
Cancer 2019







Joint Event

29th International Conference on

Nursing Education and Research

&

14th International Conference on

Cancer and Cancer Therapy

December 05-06 2019, | Dubai, UAE

The effect of melatonin and Vitamin D3 on the gene expression of P53 in MCF-7 Breast Cancer cell line

Nora Saad Alkeraishan
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P53 was identified as first tumor suppressor gene actively involved in numerous cellular mechanisms such as initiating DNA repair mechanisms, apoptosis and cell cycle arrest.More than 50% of all human cancers have a mutated nonfunctional p53 expression. Breast cancer(BC) is one of the leading cause of mortality in females and mutated p53 is documented to be the causitive agent in only 20% of them. However, mutation in p53 in BC results in more aggresive form of cancer which is more resistant to the conventional therapies.Recently multiple clinical trials suggested that the combined use of melatonin and vitamin D3 can slow down the growth of breast cancer cells. The genetic and molecular mechanisms through which these compounds initiate the cancerous cells to apoptosis or cell cycle arrest is still not fully understood. This study aims to investigate the effect of melatonin, vitamin D3 and their combined treatment on the proliferation of breast cancer cell line MCF-7 by MTT assay. Our results showed that melatonin,vitamin D3 and combined effect of vitamin D3 + melatonin inhibit proliferation of these cells by upregulating gene and protein expression of p53.

Speaker Biography

Nora Saad Alkeraishan is a Masters students at King Saud University, Riyadh Saudi Arabia.She undertook this Research Project under direct supervision of well known Scientist Dr. Samina Hyder Haq. Her intersting studies on the effect of Melatonin and Vitamin D3 on Breast Cancer Cell line MCF-7 revealed that Melatonin could significantly upregulate p53 gene expression in cultured cells and observed no direct relatioship of Vitamin D3 in upregulating p53 gene expression. Currently she is involved in genotyping the p53 to detect mutations present in the gene itself.

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Accepted Abstracts

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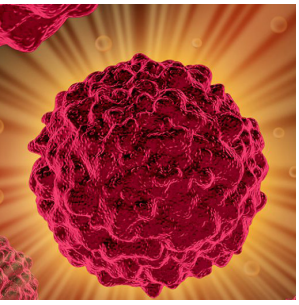

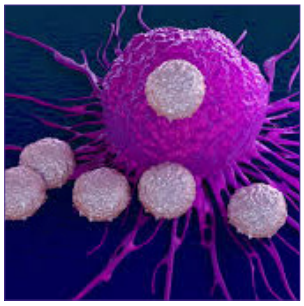

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Trends of Lymphoma (2008-2016) in Dubai hospital, United Arab Emirates. Hospital Based Registry

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Background: There were an estimated 18 million cancer cases around the world in 2018, of these 509,590 Non-Hodgkin lymphoma cases, contributing 3% of the total number of new cases diagnosed in 2018, and ranking 12th among the most common cancers worldwide and 79,990 Hodgkin lymphoma cases contributing 0.5% of the total number of new cases diagnosed in 2018, and ranking 26th worldwide.

Objectives: To study the trends of lymphoma incidence among patients registered in Dubai hospital for the period 2008-2016 and to study some socio demographic characteristics of the admitted cases.

Methodology: The ethical approval was obtained from the research committee in Rashid hospital in order to access the data in cancer registry. The data were obtained retrospectively through haematology department registry unit in Dubai Hospital for the period 2008-2016, records has been revised. All cases were confirmed and treated in Dubai hospital, all admitted cases were included in the data analysis, they were both male and females, all age groups and all nationalities and diagnosed and confirmed cases by Histopathological studies were considered only. The data were coded no names, medical record number and contact details were shown in the current study.

Results: The present study showed that the overall incidence rates of lymphoma cases registered in Dubai hospital per 1000 of the registered patients was constantly higher among males than females except in 2009 and 2010, it was lower among males than females, since it was 0.06/1000 among males in 2008, then decline to 0.02/1000 in 2009 and 0.04/1000 in 2010 and continued to increase to 0.08/1000 in 2011 and then fluctuating to be finally 0.09/1000 in 2016. While the total female incidence rate of lymphoma registered at Dubai hospital showed between 0.05/1000 in 2008, rising up to 0.08/1000 in 2014 and finally 0.04/1000 in 2016.

Conclusion: The study concluded that lymphoma is more among males compared to females and among expatriates compared to UAE nationals. The time trends showed stable curve across years during the period 2008 to 2016, to be the fifth most common cancer in 2016. Strengthening cancer registry system should be given a priority. Elimination of risk factors as much as possible is recommended to help reduce the incidence of lymphoma but there is no guaranteed way to completely prevent lymphoma

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RAS mutation tropism

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Oncogenic mutations in HRAS, NRAS and KRAS commonly occur in a wide spectrum of human cancers. These mutations are not uniform but instead have a tropism, namely the frequency, RAS isoform, position and type of mutation are often unique to each cancer. There is no definitive mechanism to explain this clinical finding, although the pattern itself has been widely reported for decades. As oncogenic RAS can induce tumorigenesis, the mutation tropism of these genes must underlie some fundamental feature of tumor initiation, or to put it another way, how cancer arises. Determining how specific RAS mutations occur would thus shed light on the process of cancer initiation, which has clinical implications for early detection and perhaps even preventative measures. This phenomenon is recapitulated in mice exposed to the environmental carcinogen urethane, which develop KrasQ61L/R-mutant pulmonary tumors, making urethane carcinogenesis an ideal platform to elucidate the underlying principles of RAS mutation tropism. To this end, we adapted the error-corrected, high-throughput sequencing approach of maximum depth sequencing to detect mutations in the endogenous murine Kras gene at great sensitivity in vivo, capturing the initiating mutations following urethane exposure. Further, by sequencing Kras as well as Hras in this manner and from different tissues and over time, we find that the sequence specificity of urethane mutagenesis, coupled with Kras transcription, to be major influences on the extreme tropism of this carcinogen.

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Is human papillomavirus associated with Breast Cancer or papilloma presenting with pathologic nipple discharge?

Fatih Levent Balci, Cihan Uras and **Sheldon Feldman**
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Purpose: There are little data on the presence or interaction of human papillomavirus (HPV) in intraductal papilloma or Breast cancer (BC) presenting with pathologic nipple discharge (PND). The study aimed to de- termine whether the HPV-genotypes are identifiable in papilloma or carcinoma of the breast by real-time PCR with broad-spectrum genotyping.

Methods: Formalin-fixed-paraffin-blocks obtained from the patients who were suffering from PND and underwent ductoscopic papilloma extraction (n=27) or segmental/ total mastectomy for cancer diagnosis (n=18). HPV-DNAs were identified by PCR with broad-spectrum genotyping. Mc Nemar test was used to compare cancer involved cases to normal-adjacent tissue concerning HPV positivity. Chi-Square test was used to analyze the association for receptor status in HPV positive cancer involved cases.

Results: The mean age (± SD) was 49 ± 16 in papilloma and 52 ± 14 in BC patients, respectively. We found high prevalence of HPV in papilloma and carcinoma: 29.6% (n=8) and 44.4% (n=8), respectively. The most common type identified in breast lesions was HPV-11 and the others were HPV- 6, 11, 39 and 82. Cancer involved samples were more contaminated by HPV in comparison to normal-adjacent tissues (p=0.016). In HPV positive cancer involved cases, hormone receptors were found to be more positive than HER2-Neu (p=0.035).

Conclusions: Our data suggest that HPV might be a causative agent for the development of papilloma and carcinoma of the breast in some cases presenting with PND. HPV positive breast cancers are more likely to be hormone positive. Further studies needed for validation regarding the integration of HPV-DNAs into the human genome that causes BC.

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Upskilling for Oncology Nursing excellence program

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Institutions providing Oncology/Hematology services are increasing and expanding and the need for nurses with specialty training/education in this area is also becoming more apparent. Worldwide there are not enough specialty trained nurses and this is a major recruitment issue within the Middle East especially due to the reliance on expatriate nurses. In the situation where recruitment companies cannot provide nurses with the obligatory 2 years specialty experience the responsibility to provide adequate training to nurses without experience has fallen back on individual organizations. Over the past 6 years this has been an issue faced many times in various work environments and the development of an appropriate education/training program to address this issue has been an ongoing focus for me as an educator and now specialist nurse. Ten oncology/hematology naïve nurses from a sister organization came to complete an 8 week training program consisting of blended learning utilizing clinical emersion as well as dedicated education sessions. Outcomes were to be competent in the administration of antineoplastic agents as well as development of the ability to manage any related side effects and oncologic emergencies. Assess involved ongoing records of practice, presentation of a clinical case study as well as a final examination. On completion of the course an evaluation questionnaire was administered to the nurses to assess their knowledge development and the positives and negatives of the course. All nurses self-assessed their knowledge base related to oncology/hematology, antineoplastic administration and CVAD care to have increased by at least 50% having attended the program.

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