These results from a pan European population confirm a role of vitamin D status and BSMI genotype in CRC risk.

Posters – Abstracts

1-POS
Retrospective analysis of Oral Carcinoma cases in Baghdad specialist centre – Iraq using ICD – O during the period 2000- 2006

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Oral cancer is a common neoplasm worldwide, particularly in the developing countries; oral cancer is a condition that involves an abnormal tissue growth in the oral tissue. It may arise as a primary lesion originating in any of the oral tissues, by metastasis from a distant site of origin, or by extension from neighboring anatomic structures. Oral cancer may originate in any of tissues of the mouth, and may be of various histologic types: adenocarcinoma derived from a major or minor salivary gland. The most common oral cancer is squamous cell carcinoma (SCC). The aim of this study is to achieve an epidemiological study of oral squamous cell carcinoma and salivary gland tumors in Iraqi patients during the period (1999-2006) and perform a clinical and pathological analysis of selected tumors in accordance with patient's informations (age, sex, occupation, address, cancer family history, and smoking habit) and tumor's informations. Finally, to direct the attention for application of ICD-10 in the case report of oral squamous cell carcinoma and salivary gland tumors according to topography and morphology of selected tumors.

The present work is retrospective descriptive study that includes a review for reported cases of oral carcinoma cases in 5 centers in Baghdad, 4 centers from (2000-2006) and one center (The Nuclear Medicine and Radiation Hospital) from (1999-2006). The materials were obtained from filling systems in 5 centers in Baghdad, to them most provinces reports were sent and registered. The oral site distribution and histopathological finding of oral carcinoma were reported and categorized according to ICD code 10 as recommended by International Classification of Disease for Oncology (ICD-10, 1992).

In this study males were affected more than females with male to female ratio 1.2:1. with the peak onset of oral carcinoma in age between 40-64 years (476, 54.3%).

Increase incidence of oral carcinoma in Baghdad in the year 2000, with more than half of patients was residence in Baghdad (381 cases, 55%).

The most occupation for females was housewife (260 cases, 39.6%) and for male /females was clerical (201 cases, 30.6%).

Tongue was the most commonly affected site by (242 cases, 27.6%). Male was affected more than female.

The salivary gland was the second most affected site (150 cases, 17.1%), also male affected more than female, while buccal mucosa of cheek third most affected site by oral carcinoma in this study and males (75 cases, 15.7%) affected more than females (54 cases, 13.6%). Moreover female was affected more by gum and palatal cases in this study (57 cases, 14.3% for the gum and 37 cases, 9.3% for the palate).

Oral cavity (unspecified site) cases represent the less percentage (2 cases, 0.2%).

The vast majority of histopathological report in this study was squamous cell carcinoma –NOS (595 cases, 67.8%).

According to (ICD-O) classification, little number of cases was lack information about the precise location of tumor.

2-POS
Pre-pregnancy weight, rate of gestational weight gain and risk of infant leukemia

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High birth weight (HBW) is associated with an increased risk of younger age childhood leukemia. Few studies have examined the key predictors of HBW, including high pre-pregnancy weight for height and increased gestational weight gain. Infant leukemia (diagnosed <1 year of age) is thought to arise in utero and is characterized by a preponderance of rearrangements involving the MLL gene (MLL+) at chromosome band 11q23. We evaluated the association between pre-pregnancy weight, rate of gestational weight gain, and risk of infant leukemia in a case-control study using data abstracted from prenatal medical records and telephone interviews. Analyses consisted of 204 incident cases (127 acute lymphoblastic leukemia (ALL) (74 MLL+), 77 acute myeloid leukemia (AML) (24 MLL+)) and 195 controls. First a general linear mixed-effects model was used to fit a 3-piece linear spline for weight gain during pregnancy, allowing the rate of gain to change during each trimester. The resulting person-specific intercepts (representing pre-pregnancy weight) and slopes (representing the rates of weight gain) for 3 time periods during pregnancy (corresponding to weeks 0-16.6, 16.7-30.0, and 30.1-end of pregnancy) were then used as predictors in multivariate unconditional logistic regression analysis (adjusted for maternal height and race, and gestational length) to evaluate their association with leukemia. Overall, there was a statistically significant 49% increased risk of infant leukemia among women who had a high pre-pregnancy weight (e.g., 78.0 kg) and who had a greater rate of weight gain during pregnancy (2nd,3rd periods: e.g., 0.68, 0.91 kgs/week) compared to women of average pre-pregnancy weight (e.g., 67.1 kg) with average rate of weight gain (e.g., 0.54, 0.68 kgs/week, respectively). This synergistic interaction was most apparent during the second time period of pregnancy for AML (OR=1.96, 95% CI:1.24-3.12) and for MLL- (OR=1.68, 95% CI:1.05-2.69). However, the interaction was strongest during the third period for ALL (OR=1.35, 95% CI: 0.99-1.84) and MLL+ (OR=1.49, 95% CI 1.06-2.07). These analyses suggest that maternal weight prior to pregnancy as well as the rate and timing of pregnancy weight gain may be involved in the etiology of infant leukemia. Given the divergent associations with weight gain and MLL positivity, these data emphasize the need for further investigations to pinpoint the timing of leukemogenesis.

3-POS
Creating an automated system for the calculation of exposure to dietary compounds within NewGeneris; a European molecular epidemiology project

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The Newborns and Genotoxic Exposure Risk (NewGeneris) study is an integrated European project investigating exposure to dietary contaminants during prenatal life and subsequent childhood cancers and immune disorders. Measurement of exposure and early effect biomarkers is being carried out, alongside Food Frequency Questionnaires (FFQ) collected during pregnancy. To allow future investigation of whether dietary factors influence biomarker measurements in maternal and cord blood, intake values for chemicals of interest (including acrylamide and heterocyclic amines) are required.

A relational database system was created to calculate maternal exposure to each chemical from FFQ data. Concentrations were assigned and loaded into the database system. Questionnaire items were then assigned to food groups for each chemical. FFQ consumption data (in grams consumed per day) are then entered and combined with the concentration data to calculate an estimated exposure level on an individual basis. Individuals can then be assigned to quantiles of exposure for any chemical. The system supports multiple scenarios so that worst-case and conservative estimates of chemical levels in food items can be applied, or sensitivity analyses carried out. Furthermore, the system supports adjusting the concentration level of the chemical by cooking method for questionnaire designs which include relevant questions.

Data from a 217-item FFQ was available for 35,372 women participating in the UK Women's Cohort Study1. Results showed an average calculated acrylamide intake of 0.4 μg/kg per day with coffee providing the largest contribution to intake as reported in previous studies2. Similar plausible values were found for the other chemicals. Calculation using the automated indices allowed for values to be obtained quickly on a large number of participants and for flexibility in the format of output.

The system allowed efficient calculation of exposure to dietary compounds of interest within the NewGeneris study. The format of the database will allow for the calculations using FFQ data from all participating birth cohorts to investigate the relationship between dietary intake and biomarker values.

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2.Kütting B et al. The association between self-reported acrylamide intake and hemoglobin adducts as biomarkers of exposure. Cancer Causes Control. (2007); [Epub].