Association between Primary Dysmenorrhea and Preterm Delivery

There is scant information about the mechanism and biochemical pathway of preterm delivery. Since some drugs that have been used to treat preterm labor are also useful for the treatment of primary dysmenorrhea. This study has attempted to evaluate the association between primary dysmenorrhea and preterm delivery. If the association is statistically significant, primary dysmenorrhea should be regarded as a risk factor for preterm delivery.

We performed a case-control study and enrolled 160 women with idiopathic preterm delivery as the case group and 160 women with term delivery as controls. This study was undertaken in women who referred to the Obstetric Clinic of Imam Reza Hospital, Mashhad, Iran during 2008. Both groups were healthy, singleton and had no obstetric problems. Demographic information, and histories of primary dysmenorrhea and previous preterm labor were recorded in a questionnaire. Statistical data were analyzed by the t-test, chi square, Mann-Whitney, and logistic regression tests by using SPSS software version 15.

There was a greater history of primary dysmenorrhea in women with preterm labor, which was significant when compared with the control group. Gravid women with a history of primary dysmenorrhea had a 3.5-fold increased risk of preterm delivery compared to women with no history of primary dysmenorrhea ($P = 0.005$). In subgroup analysis, gravid women with a history of severe primary dysmenorrhea had a 5.5-fold increased risk of spontaneous preterm delivery ($P = 0.000$), while gravid women with moderate primary dysmenorrhea had a 2.6-fold increased risk of spontaneous preterm delivery ($P = 0.001$). Primary dysmenorrhea is associated with an increased risk of spontaneous preterm delivery. A common pathophysiologic pathway may exist between these two disorders.


Metabolic Disorders in Women with Previous Gestational Diabetes Mellitus

Gestational diabetes mellitus (GDM) is a common complication of pregnancy associated with fetal and maternal adverse outcomes. These women are at higher risk for development of type 2 diabetes mellitus (T2DM), metabolic and cardiovascular diseases. Various results have been presented on the long term consequences of GDM. We have aimed to compare the incidence of these metabolic disorders between women with previous GDM and those with no history of GDM. Three groups of non-diabetic women, aged 15–45 years who participated in the first phase of the Tehran Lipid and Glucose Study (TLGS) were selected according to the following: 1) women with previous GDM, 2) women with histories of previous still births or macrosomia and no history of GDM, and 3) normal age-BMI matched controls. Women were followed for an average of 9 years for the development of T2DM, hypertension and dislipidemia. The cumulative incidence of T2DM in the GDM group was 3-fold higher than the control group. Incidence rates of T2DM were not significantly different between women in the MC-ST group and their controls; however, serum concentrations of fasting blood sugar (FBS) were significantly differed between these two groups. There was no significant difference in the cumulative incidence of hypertension and dislipidemia between the case and control groups. Women with previous GDM are at an increased risk of developing T2DM later in life. It seems that GDM screening in pregnancy could identify women at risk of metabolic disease.


A Study of Arsenic in Drinking Water in East Azerbaijan Province, Iran

Consumption of water contaminated with arsenic can cause various adverse health effects. The Iranian standard for arsenic in drinking water is 50 μg/L, while World Health Organization (WHO) has recommended a maximum level of 10 μg/L of arsenic in drinking water. As some drinking water sources are contaminated with arsenic in Hashtrood, East Azerbaijan Province, Iran (a neighborhood of Charoymagh) and since arsenic detection is not currently included in routine monitoring of drinking water, this study has aimed to trace detectable amounts of arsenic in drinking water sources of the Charoymagh district, East Azerbaijan Province.

Water supply, sanitation status, and presence of arsenic were studied in the Charoymagh district and residential villages. Water sampling and field work was carried out by environmental health experts. The EZ Arsenic Test kit was used for testing arsenic levels in the water samples.

Out of 210 villages, arsenic was detected in the drinking water of 41 villages (19.52%). In 8 villages, the level of arsenic in the drinking water was higher than the allowable Iranian standard of 50 μg/L. In 33 villages, the arsenic concentration was 10 μg/L ≤ <50 μg/L. A total number of 7290 individuals (22.06%) were exposed to higher than recommended WHO levels of arsenic in their drinking water.

It is concluded that Charoymagh district is an area that contains arsenic in some of the drinking water sources. It is necessary to replace water sources that have high levels of arsenic with safe drinking water in those villages.

An Assessment on Frequency of Accidents and Related Factors in Professional Drivers of Heavy Vehicles

Based on a World Health Organization (WHO) report, 1.3 million deaths per year worldwide are the results of traffic accidents. It is expected that any number of injuries and deaths that result from traffic accidents would rise by 65% (injuries) and 80% (deaths) until the year 2020. According to data from WHO, Iran has one of the highest mortality rates from traffic accidents in the world. The aim of this study is to assess traffic accident rates and related factors among professional drivers of heavy vehicles. This study is a cross-sectional, descriptive analytic survey. A total of 1136 professional, heavy vehicle drivers who presented to one of the driver’s periodic examination centers in the city of Yazd were included in this study. Required data that included a history of traffic accidents, age, driving experience, and weekly work hours were collected through a questionnaire. The rate of reported accidents in one year was 7.7%. The findings showed a significant relationship between factors such as age, body mass index, work hours, shift work and traffic accidents ($P < 0.05$%). Second job, chronic illnesses, and driving experience had no significant relationship with traffic accidents ($P > 0.05$%). Even after adjustment of the study variables by regression analysis, there was a significant relationship between weekly work hours, body mass index, age over 60 and under 29 years and traffic accidents ($P < 0.05$%). Because of the increased risk of traffic accidents related to age over 60 years, it seems that a decrease in professional drivers’ work hours after this age may reduce traffic accidents. In addition, advice and supervision on the reduction of drivers’ weekly work hours could lead to decreased numbers of traffic accidents.