

STUDY ON VARIATION OF SOME BIOLOGICAL FACTORS SUCH AS GENETICS, IMMUNOLOGY, BIOCHEMISTRY, HEMATOLOGY IN PATIENTS WITH HIGH RISK OF EXPOSURE TO DIOXIN

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Introduction

During the war in Vietnam, over 80 million liters of Agent Orange containing 600 kg of 2,3,7,8 TCDD was sprayed over the South of Vietnam. Many literatures have been shown exposure to dioxin, especially 2,3,7,8 TCDD, to cause numerous adverse effects in human and environment. Dioxin is the super-toxic one, the mechanism of dioxin action on human health is very complicate because it depends on respond by each individual. Study on dioxin seems to be very complicated and many problems still have not been made clearly.

Target: Analysis of some basic changes on immunological genetics, biochemistry, hematology in patients with high risk of dioxin exposure.

Objectives: Screening and selecting patients through epidemiological researches, classification based on medical records and researches conducted in Bienhoa (Dongnai), Namdong (Thua Thien Hue), Thanhkhe (Danang), Ngoquyen and Anhai (Haiphong). There were totally 1,584 objectives included 31 children in Danang and 27 children in Haiphong aging from 8-15 years, the remains were or 16 years and above.

Materials and Methods

Determine criteria on genetics, genes, immunology, biochemistry, and hematology according to standardized procedures with high accuracy and confidence.

Results and Discussions

Obtained data could be summarized as followings:

1. Analyzed gene of 5 generations which are prehistoric expose to dioxin and whose dioxin in blood have been found in exposed subjects during war, changes in Gene P53, gene Cyp aA1 and gen AhR, particularly changes in amino acids related to specific cancers have been seen.
2. Ability of respond to making good antibody in group with high risk of exposure to dioxin (HRE) is significantly lower than the control group and group with lower risk of expose to dioxin.

3. There is difference in Enzyme activity for preventing oxidation between groups.
4. Frequency of disorder in lymphocytes form is found in HRE
5. For the investigation in the relationship between exposure to dioxin and changes in immune system, bio-chemical, hematology in HRE, we found no corresponding changes between dioxin concentration in mixed blood samples and individual blood samples with changes in genetic, immune system, bio-chemical and hematology on these individuals.