

## 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 Agent Orange containing 300 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.

### Materials and methods

**Objectives:** Screening and selecting patients through epidemiological researches, classification based on medical records and researches conducted in Bien Hoa (Dong Nai), Nam Dong (Thua Thien Hue), Thanh Khe (Da Nang), Ngo Quyen and An Hai (Hai Phong). There were totally 1,584 objectives included 31 children in Da Nang and 27 children in Hai Phong aging from 8-15 years, the remains were or 16 years and above.

Bio-indicators of genetics, genes, immunology, biochemistry, and hematology were determined according to standardized procedures with high accuracy and confidence.

### Results and Conclusions

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, changed in Gene P53, gene Cyp aA1 and gene AhR, particularly changes in amino acids related to specific cancers have been seen.
- 2) Ability of respond to making good antibody in group with lower risk of expose 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 among 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, biochemical, hematology in HRE, we found no relative change between dioxin concentration in mixed blood samples and individual blood samples with changes in genetic, immune system, bio-chemical and hematology on these individuals.