

SOME OBSERVATIONS ON THE PRELIMINARY RESULTS OF REPRODUCTIVE HEALTH ON PEOPLE LIVING NEAR DA NANG AIRBASE

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Introduction

Recent research conducted by Hatfield in cooperation with the Office of the National Steering Committee 33 in 2007 at Da Nang airbase has clarified distribution and increase of dioxin exposure in the soil and water due to flow from the lakes in contaminated airbase in Da Nang city¹. The research also showed that levels of dioxin in individuals working in Da Nang airbase are higher than 100 times globally acceptable levels. Source of dioxin contamination in this area is suggested to be spills and leakages of herbicides used by US army during the Ranch Hand operation in the war on Viet Nam. Therefore, an urgent preliminary survey on people living nearby Da Nang airbase was conducted in same year. The main results have showed that there might be causes in relation between exposure to dioxin and rate of miscarriages and spontaneous abortion.

Materials and Methods

1. Subject:

- A group of 52 persons (30 males and 22 females) living nearby Da Nang airbase (Exposed group: Thanh Khe district)
- Control group of 50 persons (23 males and 27 females) living far from Da Nang airbase (Control group: Hai Chau district)

2. Study methodology:

- Cross-sectional study
- Individual interviews with set questionnaire
- Data processing with SPSS

Results and Discussion

The survey covered state of economy, society, health status, life style, knowledge on dioxin and role of local government to prevent exposure to dioxin. Results have showed that there are no differences between two groups excepting the rate of spontaneous abortion and miscarriages.

When we asked about status of health of mothers, we concentrated on the number of spontaneous abortion, miscarriages, number of children, status of health check and gynaecological check as well. Five of 22 females (22,7%) in the exposed group had at least one spontaneous abortion and miscarriage, while only 1 of 27 females (3,7%) in control group had one spontaneous abortion and miscarriage. The main point that all of the 5 females that had abnormal reproduction are working in the airbase. They are from the North and had married men from the South and had settled in Da Nang. They have never worked at waste burning or had been exposed to any other chemicals. These results are also supported strongly by other studies that there is a relationship between exposure to dioxin and abnormal reproduction^{2,3,4}

Some highly dioxin contaminated areas including lakes in the airbase area and the fishes living in these lakes are certified by several researches^{1,5,6}. Recently, Hatfield, Canada (2007) reported that the people who work on the Da Nang airbase in Sen Lake (harvesting fish and lotus) and in the surrounding gardens had the highest level of dioxin with 1,220 ppt TEQ (94% TCDD); two other individuals who were fishing and farming inside the Da Nang airbase perimeter had 600 ppt TEQ. Results of the survey have also confirmed that many fishes and aquatic animals living in the contaminated lakes are consumed by fishermen (and possible some members of the general public). It might be suggested that dioxin from the former mixing, loading and storage areas is adsorbed onto particulate matter and settles out in water bodies. Fish, other aquatic animals (such as frogs, snails, ducks, etc.) continue to be contaminated to this day. This leads to conclusion that the people ingests dioxin from

contaminated food, and also absorbs through the skin as a result of direct exposure to contaminated soil and sediments (and perhaps also contaminated dust). In addition to this, there is a direct connection between Sen Lake and areas outside through the local drainage system. Thus, this research indicates that dioxin from highly contaminated areas are being transported off base, resulting in unacceptable health risks to the population.

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