

Impact of Radiation on the Population during the First Weeks and Months after the Chernobyl Accident and Health State of the Population 10 Years Later

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After the nuclear catastrophe at the Chernobyl NPP on the 26th of April 1986, the USSR government immediately took all measures to classify the fact of the accident itself and its consequences for the population and the environment. The USSR government released instructions marked with “*top secret*” to classify all data on the accident at the Chernobyl NPP, especially on those related to the health of the population that suffered from the accident. Then followed instructions by the USSR Ministry of Health and the USSR Ministry of Defence to classify irradiation doses accumulated by the population, liquidators (people that had been involved in liquidation of the accident consequences) and the military personnel. These regulations demanded that medical staffs should not make the diagnosis of “acute radiation syndrome” in the files of the military-liquidators and replace it by something else.

The classified documents have not been accessible for many years. Only in 1991, when the Soviet Union was collapsing, the author of this material had managed to obtain secret protocols [1] of the Operative Group of the Politic Bureau of the Central Committee of the CPSU (the Communist Party of the Soviet Union). These protocols stated a number of persons were subject to irradiation and hospitalised during the first days after the Chernobyl accident.

Secret protocols of the Operative Group

In the protocol of the 4th of May 1986, the first description about the health state of population appears: "The report of Mr. Stchepin (First Deputy Minister of Health Care of the USSR - A.Ya.) on hospitalisation and medical treatment of the population subject to radiation effect: It is noted that by the 4th of May a total of 1,882 persons have been hospitalised. The total number of persons examined reached 38,000 persons. 204 persons have been found suffering radiation syndrome of different seriousness. Among them 64 are children. 18 persons are in critical state. 1,900 beds in medical institutions of the Ukrainian SSR have been allocated to hospitalise the persons suffering from the consequences. The Ministry of Health Care of the USSR along with the VCSPS (The USSR Central Soviet of Trade Unions -

A.Ya.) allocated a special health centre in Michailovskoye near Moscow for the persons suffering mild forms, and health centres in cities Odessa and Evpatoriyy with total 1,200 places. A total of 6,000 beds in health centres institutions and 1,300 beds in pioneer camps were allocated near Kiev."

Protocol on the 5th of May 1986: "It is reported.. by Mr. Stchepin that the total number of hospitalised persons amounted to 2,757 among which 569 were children. 914 have symptom of radiation syndrome and 18 out of them are in critical state."

Protocol on the 6th of May 1986: "It is reported.. by Mr. Stchepin that by 9-00 on the 6th of May the total number of hospitalised persons is 3,454. 2,609 of them are on stationary treatment, including 471 children. According to the updated information, the number of persons suffering acute radiation syndrome reached 367, including 19 children. 34 of them are in critical state. In the 6th Moscow Hospital there are 179 persons on stationary treatment, including 2 children."

The cynicism of the authorities shown in the document is striking: "The proposal of the Ministry of Health Care of the USSR on the expedience of publishing data on the number and state of persons hospitalised in the 6th Moscow Hospital should be accepted, taking into account that there are working American specialists in this hospital." If the Americans were not working in this hospital, the world would have never learned about the number of people suffering from the Chernobyl accident and undergoing treatment in the 6th Moscow hospital.

Protocol on the 8th of May 1986: "It is reported.. by Mr. Stchepin that in the course of the last day the number of hospitalised increased by 2,245 persons including 730 children. By 10.00 on the 8th of May the number of persons on stationary treatment amounted to 5,414 including 1,928 children. The diagnosis of radiation syndrome has been concluded in 315 cases."

Protocol on the 10th of May 1986: "It is reported.. by Mr. Stchepin that in the course of the last 2 days 4,019 persons have been hospitalised including 2,630 children. The total number of persons in hospitals is 8,695, including 238 persons with diagnosis of radiation syndrome, 26 of which are children. In the

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course of the last day 2 persons died, and 33 are in critical state."

Protocol on the 11th of May 1986: "It is reported.. by Mr. Schtepin that in the course of the last day 495 persons have been hospitalised. The total number of persons undergoing treatment and medical examination in hospitals constituted 8,137 including 264 persons with diagnosis of acute radiation syndrome. 37 persons are in critical state. 2 persons have died during the last day."

Protocol on the 12th of May 1986: "It is reported.. by Mr. Schtepin that in the course of the last day 2,703 more persons have been hospitalised, generally in Byelorussia. 678 persons have been discharged from hospitals. 10,198 persons are undergoing treatment and medical examination in hospitals."

Beginning from the 13th of May 1986, the number of hospitalised persons in the reports of the Deputy Minister of Health Care of the USSR sharply decreased, while the number of discharged persons started to increase.

Protocol on the 13th of May 1986: "Make note that in the course of the last day 443 persons have been hospitalised, 908 persons have been discharged from hospitals. 9,733 persons including 4,200 children are undergoing treatment and medical examination in hospitals. Diagnosis of radiation syndrome has been concluded in 299 cases including 37 children."

Protocol on the 14th of May 1986: "It is reported.. by Mr. Schtepin that in the course of the last day 1,059 more persons have been hospitalised. 1,200 persons have been discharged from hospitals."

Protocol on the 16th of May 1986: "It is reported.. by Mr. Schtepin that by 16th of May 1986 the number of hospitalised amounted to 7,858 persons including 3,410 children. Diagnosis of radiation syndrome has been confirmed in 201 cases. The total number of perished and deceased persons is 15, including 2 persons that have died on the 15th of May."

However, as the documents show, these data were not thorough and exact. At the meeting of the Operative Group on the 16th of May, the following decision was taken: "The task should be given to Mr. Schtepin to obtain more exact information on the number of persons hospitalised and suffering radiation syndrome, that are in hospitals in Moscow and other cities of the RSFSR (Russian Soviet Federative Socialist Republic), the Ukraine, and Byelorussia, including military personnel and Ministry of Inner Affairs staff."

Protocol on the 20th of May 1986: "It is reported.. by Mr. Schtepin that over the last 4 days the number of hospitalised increased by 716 persons. Diagnosis of radiation syndrome has been confirmed in 211 cases,

including 7 children. The total number of deceased persons is 17. 28 persons are in critical state."

Beginning from the 26th of May 1986 the description on the number of hospitalised persons in the secret protocols of the Operative Group of the CPSU Central Committee Politbureau became irregularly, not at every meeting.

Protocol on the 28th of May 1986: "It is reported.. by Mr. Schtepin that 5,172 persons are undergoing treatment in hospitals, including 182 persons with the confirmed diagnosis of radiation syndrome. The total number of deceased persons by the 28th of May constituted 22 persons (plus 2 persons had perished in the accident)."

Protocol on the 2nd of June 1986: "It is reported.. by Mr. Schtepin that 3,669 persons are undergoing treatment in hospitals, including 171 persons with the confirmed diagnosis of radiation syndrome. The total number of deceased persons by the 28th of May constituted 24 persons (besides, 2 persons had perished in the accident). 23 persons are in critical state."

This is the last mentioning about the number of hospitalised persons in the secret protocols of the Operative Group, although the Group itself continued to exist until the early 1988. Its last meeting was held on the 6th of January 1988.

A question arises: why did the process of discharging people from hospitals become so rapid after the number of persons hospitalised for treatment had exceeded 10,000? The answer to this question can be found in the same secret documents.

Protocol No.9 on the 8th of May 1986: ".... The Ministry of Health Care has confirmed the new norms of acceptable levels of the population irradiation 10 times higher than old norms. Increase of these norms to levels 50 times higher than the previous is possible in specific cases." And further: "By these means the health safety of the population of all ages is guaranteed, even in case the current radiation situation remains for 2.5 years." These norms have been confirmed even for pregnant women and children.

Such action means that, by applying the new norms exceeding the old ones by 10 to 50 times to more than 10,000 people hospitalised for treatment due to irradiation by the accident, these people had become healthy automatically and were discharged from hospitals and clinics. It as well explains the sharp decrease in the number of people suffering the acute radiation syndrome. It explains the fact that at all further meetings of the Operative Group on Chernobyl no information appeared on the hospitalised persons. It goes without saying that the Soviet party leadership increased the acceptable irradiation doses by 10 to 50 times in order to conceal the true number of the

affected people. To a significant extent they succeeded.

As the process of democratic transformation began in the USSR, however, the truth about the real scale of population irradiation due to the Chernobyl catastrophe gradually started to emerge. In the parliamentary hearings in the USSR Supreme Council in 1990, Academician Ilyin, the director of the Institute of Biophysics, one of those who were concealing the truth about the health of people in the affected territories, had to admit under the pressure of deputies' inquiries and the facts in the affected territories (including mine — A.Ya) that "1.6 million children received irradiation doses that are worrying us; the decision should be taken on how to act further [2]." He also admitted that "if the dose limits were lowered to 7 rem per 35 years (of life — A. Ya.), we would have to increase the number of 166 thousand people that are now planned to be relocated approximately by 10 times. Relocation of a total of 1.6 million people would have to be considered. The society must balance all the risks and profits of such an action." As one can see, neither the health of people nor the real state of things was considered, but only the economic side of the problem was. The USSR was not able to relocate such number of irradiated people. Thus, the officials were trying to conceal the truth about the health of the population from the people itself.

Health state of the people ten years later

The results of studies conducted by conscientious scientists ten years after the Chernobyl accident are striking. According to the estimate of the World Health Organisation, the number of liquidators - people who took place in liquidation of the accident consequences - amounts to 800,000. Russian scientists estimate this number as approximately 600,000. Nobody knows the exact figure because, according to the documents the present author obtained already in 1989, "Persons who had taken part in the extermination of the accident consequences after the 1st of January 1988 should not be included in the registry from 1989 by the order of the Ministry of Health Care of the Ukrainian SSR." However, all-union organisations about health care report that morbidity and mortality increase among the liquidators. They mainly suffer from vegetovascular dystonia, heart diseases, lung cancer, gastrointestinal diseases and leukaemia. According to the data of the Ukrainian officials, approximately 8,000 liquidators have died over the ten years after the Chernobyl catastrophe. The official data states that a total of 2,000 liquidators in Russia have died within the same period. In newspapers this number reaches 50 thousand people.

According to the reports of the Ministry of Health Care of Belarus, the total morbidity in the most contaminated areas of this country has increased by 51 percent in comparison to the period before the

Chernobyl accident, including lung and stomach cancer, as well as the genitourinary system problems.

The data of the Ukrainian officials state that 148 thousand people have died due to the consequences of the Chernobyl catastrophe over the ten years after the catastrophe.

Special attention is needed in the situation of children in the Ukraine. According to the report of the Ukrainian Research Institute of Paediatrics, Obstetrics and Gynaecology of the Ministry of Health Care of the Ukraine, the statistical data bear evidence of a continual increase in infant mortality as compared to the period before the Chernobyl accident, while in the rest of the Ukraine it has even decreased by 6 percent. In some regions the primary morbidity has increased by 1.5-2 times over the last ten years. In particularly affected territories the morbidity of endocrine system, blood and blood-forming organs, as well as the number of hereditary malformations, neoplasms have increased by 2-3 times. There are areas where the primary morbidity is 14-20 times higher than the average rate in the Ukraine. The incidence of child thyroid cancer has significantly increased. While only 2-3 cases of thyroid cancer were registered annually before 1986, 200 cases were registered in 1989 in the Ukraine.

The most widely spread children diseases in the affected territories are: thyroid hyperplasia of 1st and 2nd degrees, diseases of digestive organs, caries, diseases of throat and nose, diseases of the nervous system, anemias, vegetovascular dystonia, diseases of respiratory organs, heart diseases, allergic diseases, and rachitis [3].

The birth rate in the Ukraine has decreased from 15 per 1,000 persons in 1986 to 11.4 at present (the death rate 13.4). The situation has worsened especially in 75 districts of strict radiation control in the Kiev, Zhitomir, Chernigov and other (total 11) regions of the country. The indices of children mortality in these districts are 1.6-2 times higher than the Ukrainian level [4, 5].

According to the data of the same institute, medical examinations of women show increases of different complications during pregnancy as well as increases in the number of pathological birth and birth with complications. The number of anemias and pregnancy interruption threats has increased 1.5-2 times. Already during the first year after the Chernobyl catastrophe, a two-fold increase in the number of bloodying at birth was registered (from 3.5 to 7.5 percent). Over the following years this rate has increased to 9.2 percent.

The morbidity has increased for cardiovascular diseases, diseases of the liver, and neurocirculatory dystonia by pregnant women in the strict radiation control districts [6].

Delay of foetus growth is registered in its main indices. This means the possibility of hypotropia development.

Health state indices of children in the Zhitomir region (Ukraine) have significantly worsened over the last three years. According to the report of the Zhitomir official medical authorities, the number of premature-born children has grown. Every second child in the first year of its life belongs to the risk group. Only 38 percent of children, born before the Chernobyl catastrophe, were found to be healthy. The morbidity among these children has increased by 27 percent.

The group of children with infant-cerebral paralysis and oncological diseases has grown significantly. In 1992-1994 2 children with brain-cancer have been registered every year in Zhitomir, while in 1994 it was already 8. Thyroid hyperplasia, autoimmune thyroiditis among the Zhitomir children are registered by 4 times as often as compared to the republican average [7].

In the capital of the Ukraine - Kiev, children irradiated at the moment of the accident constitute a special group of population. The morbidity among children up to 14 years was 1,554.5 per 1,000 children (the average rate in the Ukraine is 1,308). One needs to note the higher morbidity of Kiev children in mental disorders - 40.2 per 1,000 children (the Ukraine - 30.0); diseases of respiratory organs - 995.4 (the Ukraine - 743.1); chronic bronchitis - 8.4 (the Ukraine - 4.7); bronchial asthma - 4.6 (the Ukraine -2.8); as well as in diseases of digestive organs in comparison to the average Ukrainian rates.

However, a dramatic tendency common in the Ukraine, Russia and Belarus should be noted, particularly in the increase in the number of thyroid cancer among children. Most of these cases are found in Belarus. According to the data of the World Health Organisation, 21 cases were registered in the period from 1966 to 1985. After 1986 the number of cases amounted to 379. Within the period from 1986 to 1989, 18 cases have been registered, in 1990 - 29, in 1991 - 59, in 1992 - 66, and 46 cases only in the first half of 1995.

According to the data of the World Health Organisation, 680 cases of thyroid cancer among

children have been registered in Russia, the Ukraine and Belarus by December 1995. The data of the European Association for Studies of the Thyroid Gland shows that this number is only the beginning of the outbreak, and in the next 30 years thousands of children will suffer from thyroid cancer.

The above mentioned data on morbidity and mortality development, especially among the children residing in the affected territories, testify to the fact that, in the first days after Chernobyl catastrophe, millions of people have been subject to irradiation. It is far beyond thousands of people reported in the secret documents of the Operative Group of the Politbureau of the CPSU Central Committee. As time passes more since the catastrophe at Chernobyl, people will learn more and more about the results of this catastrophe and its impact on genes of future generations of Russia, the Ukraine and Belarus, as well as on the ecology of the whole planet.

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