



Tuberculosis in Diyala Province Before and During the Embargo

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Abstract

The retrospective study has been done for all types of tuberculosis in Diyala province represented by patients suffered from infection examined in the anti-tuberculosis health center in Baquba city with the dependence of numbers and types, through testing three group samples, number of patients examined in the first six months of (1995). Before the application of the accord between Iraq and the UN (oil for food and medicine) and number of patients examined in the first six months of (2002). After six years of the application of the accord between Iraq and the UN (oil for food medicine). The result revealed that all types of tuberculosis were increase especially the pulmonary tuberculosis after imposing the embargo and before the application of the accord (oil for food and medicine) the number of pulmonary tuberculosis increased about triple in (2002) in comparison with 19990. After six years of the accord with UN this result confirm the UN effective accord causal of the malnutrition and the shortage of the chemotherapy drugs used in treat patients suffered from this disease, despite the efforts that the medical authorities have been done.

Keywords: retrospective study, tuberculosis, chemotherapy drugs

Introduction

There had been 120 years from the discovery of Robert Koch in 24 of march 1882 his bacilli which named (Koch bacilli) this disease which carried the death ghost for 1/7 of world of people.

Tuberculosis is an infectious disease caused by the tubercle bacillus, there are four types of mycobacterium tuberculosis is recognized, human, bovine, moun, and, avian but only the human and abovine are of major clinical importance tubercle bacilli can survive in dark place for months or years. On the other hand are highly susceptible to sunlight, kills tubercle bacilli in 5 minutes but in a north light the bacilli can survive for 5 months or more.⁽¹⁾ In sputum bacilli may resist even 5% phenol for several hours, 1-% sodium hypochlorate liquefies sputum and kills tubercle bacilli rapidly. Tubercles bacilli rapidly destroyed by heat in 20 minutes at 60c and in 5 minutes at 70 C.⁽²⁾ Patients positive on direct smear are

much more infectious than that positive on culture and individuals infected by then are more likely to develop clinical tuberculosis. Direct smear examination of sputum is an essential part of diagnosis, and it is relatively cheap, saving the cost of X-ray and technicians are easily trained for the work.⁽³⁾

A more formidable result of primary tuberculous lesion is the development of the haematogenous forms, they may either be of the acute type military tuberculosis or tuberculous meningitis, which are more likely to occur in infants or young children or the more chronic type with local manifestation in the kidneys, bones, joints etc.

The fact that mortality and morbidity in older men has fallen very much less than in younger age groups suggest that the disease represent a breakdown of infection contract at younger age.⁽⁴⁾

Chemotherapy of infections has reduced the chances of young people being infected, when the prevalence of tuberculosis in the community was high.

The measurement of the size of the tuberculosis problem in a community is of importance not only in the planning of anti-tuberculosis services but also in estimating their success.

Aim of the Study:

The study aims to demonstrate the increase of the percentage of the tuberculosis disease in all its types during the embargo because of the malnutrition and the shortage of chemotherapy anti-tuberculosis drugs.

Materials and Methods

A retrospective study included statistical collection of tuberculosis patients of different age and sex's groups, whose frequent in community to the anti-tuberculosis center in Diyala province (BAQUBA) in the first six months of 1990 before the imposing of embargo and the first six months of (1995) before the application of the accord (oil for food and medicine) and the first six months of (1995) before the application of the accord (oil for food and medicine) and the first six months of (2002) after six years from the application the accord with UN.

The patients of pulmonary tuberculosis has been examined by the X-ray and direct sputum smear in

addition to ESR, when the result of direct smear examination is positive, combined anti-tuberculosis chemotherapy should be given immediately after the diagnosis of the disease, but if the result is negative of the sputum for three times (three days) and the tuberculosis infection is appear by the X-ray, with high ESR and by clinical examination, the sputum for must be sent to culture in the laboratory for 45 days and the treatment of anti-tuberculosis chemotherapy must be done.

In the patients of extra-pulmonary tuberculosis, everything must be done in the hospital, in the pleural effusion, the effusion must be aspirated and sending it to the laboratory to ascertain the result, in all other types of tuberculosis such as (lymphadenitis, bones, meningitis, kidneys, peritonitis etc.) It is diagnosed after making the biopsy in hospital and sends the pieces to the laboratory to being certain of it, if the results were positive send the patients to the anti-tuberculosis centers for anti-tuberculosis chemotherapy treatment.

Results

The result of the study which comprised numbers of patients in different sex and age whose age ranged from (1-70) years with a mean age of 29 years shows clearly, the number of tuberculosis increased especially the number of pulmonary tuberculosis as following.

1.The number of active pulmonary tuberculosis (positive direct smear) was increased from 37 cases in 1990 to 64 cases in 1995, patients numbers was increased to 118 patients in 2002 (table No.1).

Disease	1990			1995			2002		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Pulmonary tuberculosis (+)	18	19	37	33	31	64	34	84	118

2.The number of pulmonary tuberculosis (negative direct smear) increased from 56 cases in 1990 to 100 cases in 1995, case numbers increased to 170 cases in 2002. Table No. 2

Disease	1990			1995			2002		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Pulmonary tuberculosis (+)	29	27	56	51	49	100	81	89	170

3.The numbers of patient with tuberculosis pleural effusion increased from 8 cases in 1990 to 16 cases in 1995 and to 52 cases in 2002. Table No. 3

Disease	1990			1995			2002		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Pulmonary tuberculosis (+)	3	5	8	7	9	16	18	34	52

4. Patient numbers with tuberculosis lymphadenitis were increased from 7 cases in 1990 to 16 cases in 1995 and to 29 cases in 2002. Table No. 4

Disease	1990			1995			2002		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Pulmonary tuberculosis (+)	3	4	7	7	9	16	11	18	29

5. All other extra-pulmonary tuberculosis such as (bones, meningitis, peritonitis, skin, genital, and kidney etc.) increased from 11 cases in 1990 to 29 cases in 1995 and to 43 cases in 2002. Table No. 5

Disease	1990			1995			2002		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Bones	2	5	7	4	6	10	7	10	17
Meningitis	2	1	3	5	3	8	3	3	6
Peritonitis	1		1	2	2	4	3	4	7
Skin				2	1	3	6	0	6
Genital					2	2	1	3	4
Kidneys				1	1	2	2	1	3
Total			11			29			43

The results of this study showed that the tuberculosis was under control in Diyala province in 1990 and the percentage was little, but after the imposing the embargo in 1990, and as a result of malnutrition, shortage of anti-tuberculosis chemotherapy drugs, X-ray films, laboratory materials, the disease began to

increase after 1990. The application of accord (oil for food and medicine) was not so effective to cease the disease despite the typical improvement of food because there was a shortage in anti-tuberculosis drugs and a cause of embargo.

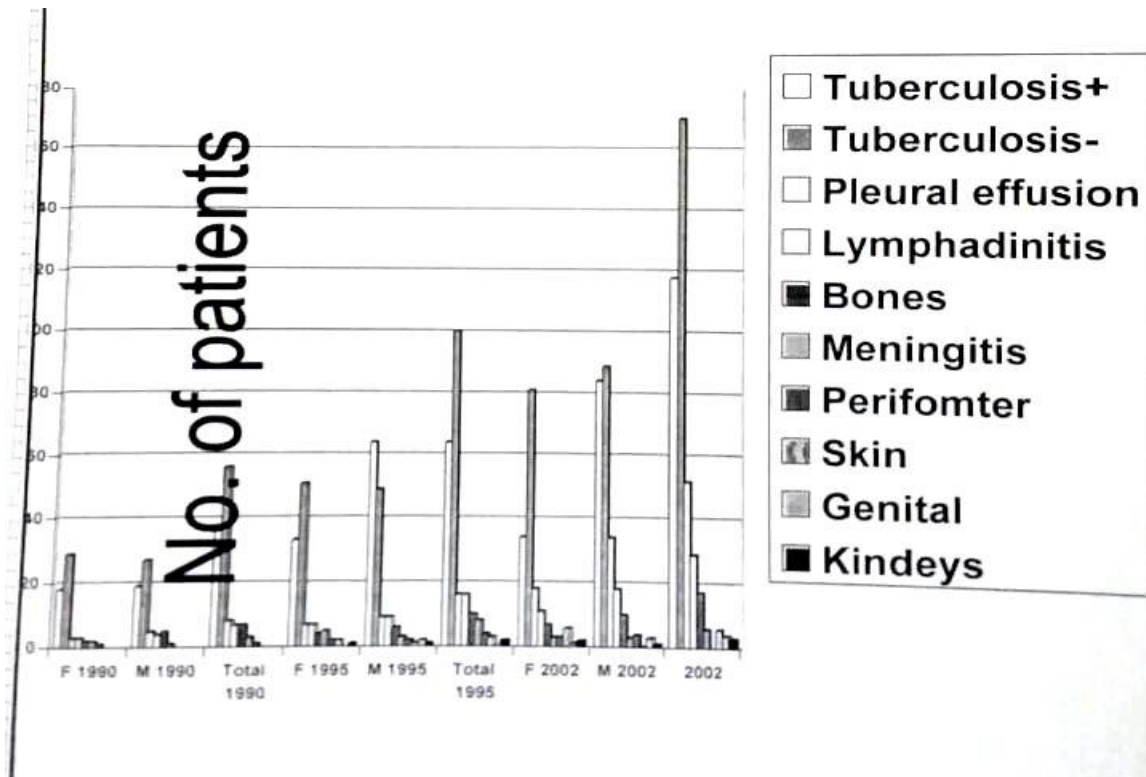


Figure.1. Number of patients infected with disease

Discussion

It is clear from the results that Iraq was almost clear of tuberculosis and the number of tuberculosis infections in 1990 was under control, but the percentage of infection has clearly increased after imposing the embargo because of the malnutrition and the shortage of the drugs. The percentage of tuberculosis disease has increased more in the first six months of 1995 as shown in following table. No.6.

1. Active pulmonary tuberculosis (direct smear positive) increased from 16% in 1990 to 64% in 1995.

2. Pulmonary tuberculosis (direct smear negative) increased from 17.17% in 1990 to 30.39% in 1995.
3. Tuberculosis pleural effusion increased from 10.52% in 1990 to 21.05% in 1995.
4. Tuberculosis pleural effusion increased from 13.46% in 1990 to 30.70% in 1995.
5. All other types of extra – pulmonary tuberculosis increased from 13.25% in 1990 to 34.93% in 1995.

Table No. 6

Disease	Percentage in 1990	Percentage in 1995
Pulmonary tuberculosis (+)	16.89%	29.22%
Pulmonary tuberculosis (+)	17.17%	30.39%
Tuberculosis pleural effusion	10.52%	21.05%
Tuberculosis lymphadenitis	13.46%	30.70%
All other extra-pulmonary tuberculosis	13.25%	34.93%

After the application of the accord with UN in 1996 the improve of the health circumstances in Iraq was not sufficient (because of the shortage in anti-tuberculosis chemotherapy drugs, X-ray films, materials of laboratory's tests.. etc.) as it has been assured by the numbers presented in this research till they go past doubles and triple the numbers of 1990 as shown in following. Table No. 7

1. Active pulmonary tuberculosis (direct smear positive) increased from 16.89% in 1990 to 53.88% in 2002.

2. Pulmonary tuberculosis (direct smear negative) increased from 17.17% in 1990 to 52.14% in 2002.
3. Tuberculosis pleural effusion increased from 10.52% in 1990 to 68.42% in 2002.
4. Tuberculosis lymphadenitis increased from 13.46% in 1990 to 55.76% in 2002.
5. All other types of extra-pulmonary tuberculosis increased from 13.25% in 1990 to 51.80% in 2002.

Table No. 7

Disease	Percentage in 1990	Percentage in 1995
Pulmonary tuberculosis (+)	16.89%	53.88
Pulmonary tuberculosis (+)	17.17%	52.14%
Tuberculosis pleural effusion	10.52%	68.42%
Tuberculosis lymphadenitis	13.46%	55.76
All other extra-pulmonary tuberculosis	13.25%	51.80%

As shown from the comparison of these results of this study with another study with another study would be done in Poland showed increase of the incidence of tuberculosis in Poland was about 2 times higher than the average of Europe⁽⁶⁾. An when I compared my

study with Italian study, I noted the high incidence of pulmonary tuberculosis in Iraq than in Italy⁽⁷⁾. My study confirm the embargo causes increasing of tuberculosis, and the tuberculosis situation is still very serious.

Conclusion

The world is going to cease this disease, in the same time the percentage of tuberculosis infection increased in Iraq a cause of abnormal situation of embargo, and after the application the accord with UN in 1996 the sanitary situation in Iraq still bad, despite of the good medical efforts to cease the tuberculosis infection through educating the patients to prophylaxis them from tuberculosis disease, and the social, economical and psychological situation of the tuberculosis patients has very important role for the treatment. The complete results of the study should provide sound evidence for formulating appropriate policies for establishing effective employee tuberculosis prevention and surveillance program in the service processing centers. Tuberculosis control strategies need to consider both the health's – care seeking behavior of people with tuberculosis and initiation of appropriate treatment and maintenance of appropriate treatment.

Recommendations

1. Raise the health education by prophylaxis of this disease through the early diagnosis and treatment.
2. Raise the health education for those who are in a close contact with the tuberculosis patients and take everything in consideration to avoid the infection through taking the prophylactic drugs.
3. The importance of the assurance that the BCG had been injected to the children.
4. The patients and his relative must be calmed down and told that patient must be take the treatment according to the treating physician instructions.

5. The importance of expanding the drugs distribution of tuberculosis in all local pharmacies because many patients scared of being discovered carrying the tuberculosis by the specialized health centers.

References

1. SOLTYS MA.(1952). Tubercle Bacillus and laboratory Methods in Tuberculosis. Edinburg, Livingstone.
2. CRUICKSHANK R., ED.(1965) Medical Microbiology, 11th Edition, p.195.Edinburg, Livingstone.
3. KATZ J. and KUNOFSKY S. (1960) Environmental versus constitutional factors in the development of tuberculosis among Negros. Am.Rev.Resp.Dis.81, 17.
4. ROMEYN J.A. (1970). Exogenous reinfection in tuberculosis. Am.Rev.Re.Dis.101,932.
5. FOX W. (1964). Realistic chemotherapeutic policies for tuberculosis in the developing countries. Br.Med.J.I, 135.
6. GRUZLICA W. and SZCZUKZ (Tuberculosis in POLAND nad the world at the beginning of the third millennium) Przegl- Epidemiol. 2000: 54(1-2): 9-24.
7. G.BAGNASCO- W. BROSSA-C. MIRAVALLE (Aspetti attuali della patologia tuberculare) Vol.21 – N. 3(1982).

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