

Editor's Comment:Comments: **all the corrections are highlighted in green**

Wrong word	My suggestion	<u>Author's Feedback:</u>
Abstract		
topical	Is it tropical	We meant topical (current) not tropical
oldest	Older (age $\pm$) 45.7 $\pm$ 18.8 years	Corrected
youngest	Younger (age $\pm$) 26.6 $\pm$ 17.7 years	Corrected
pulmonary tuberculosis represents two thirds of all cases (58%).	What are other 42%? E.g. Ganglionic TB....%, cerebral TB.....%, pericardial TB.....%, urogenital TB....%	We completed the sentence
bacilloscopy.	Is it correct?	Yes but uncommon, we replaced “negative bacilloscopy” by “smear negative”
On the other hand, we demonstrated that death occurs preferentially in the oldest patients and that ganglionic and cerebral TB occur preferentially in the youngest patients whereas urogenital and pericardial TB occur in the oldest patients especially.	This sentence is too long. You may break in to two. e.g. On the other hand, we demonstrated that death occurs preferentially in the older (age $\pm$.....) patients. Ganglionic and cerebral TB occur preferentially in the younger (age $\pm$.....) patients whereas urogenital and pericardial TB occur in the older (age $\pm$.....) patients especially.	Done
RR = 1.58; IC _{95%} = what is RR and IC stand for?		RR: Relative Risk / CI_{95%} : 95% Confidence Interval We added an explanation for this in part “Methodology”
Peritoneo-intestinal	peritoneo-intestinal	ok
Introduction		
topical	tropical?	We meant topical which means “current”, not tropical
10.4 million the number of people	10.4 million of people	Ok
1.8 million the number of people who died from	1.8 million of people who died from	Ok
but almost cases	but most cases	Ok
patient was quickly diagnosed and treated	patient was diagnosed and treated early.	Ok
30 636 cases	30,636 cases	Ok
28 955	28,955	Ok
100 000 inhabitants	100,000 inhabitants	Ok
TB all types	All types of TB	Ok

number of deaths in the same putting an end to TB by 2030	number of deaths due to TB in the same eradication of TB by 2030	Ok
between 2000 and 2012, and had two objectives	between 2000 and 2012. It had two objectives	Ok
Material and Methods		
496 687 inhabitants	496,687 inhabitants	Ok
close to 496 687 inhabitants in 2014.	Have you got any data related to the study period from 2000 – 2012?	We add population data in 2000 and 2012
It consists in a retrospective study based on 7671 cases	This was a retrospective study based on 7671 cases	Ok
In fact, patients go for consultation in the provincial hospital	In fact, patients go for the first consultation to the provincial hospital	Ok
TB are oriented towards	TB are directed to the provincial CDTRD	Ok
undergo the adequate treatment and are followed during all the treatment period in the CDTRD.	undergo treatment and are followed up during the full course of treatment period in the CDTRD	Ok
All criteria of reported cases	All the details of reported cases	Ok
(age, gender, affected	(e.g. age, gender, affected	Ok
biological examination	clinical examination findings	Ok
examination and treatment, case progress ...)	examination, treatment and follow-up)	Ok
patienttreatment and in	patient treatment and in	Ok
The variables we were interested in are gender	The variables we included in our study were age, gender	Ok
and season.	and the season.	Ok
theestimations	the estimations	Ok
anddividing	and dividing	Ok
we used chi-square test	chi-square test was used	Ok
errorrisk	error risk	Ok
Furthermore, we used the Relative Risk in order	Furthermore, Relative Risk was used in order	Ok
and between gender and localization	and gender and localization	Ok
We also used One Factor Analysis of Variance (Anova)		On the other hand, One Factor Analysis of Variance (Anova) was used
If the Anova test is significant, which means that patients with different TB localization (or TB evolution) are not the same age, we apply the meansmultiple comparison method in order to get groups of localizations (or evolution stages) different according to the age (grouping criteria). That means that patients with localizations (or evolution stages) belonging to the same group are the same age. On the other hand,	To be written in correct English	On the other hand, One Factor Analysis of Variance (Anova) was used in order to analyze the relation between age and localization. Indeed, if the Anova test is statistically significant, that means that TB localization depends on the age of patients. In this case, an additional analysis, called means multiple comparison is applied to

patients with localizations (or evolution stages) belonging to different groups are not the same age.		distinguish localizations' groups with statistically different age, i.e. patients with localizations belonging to the same group are statistically the same age, whereas patients with localizations belonging to different groups are not the same age. The same statistical method was used to investigate the relation between age and TB evolution
Results Among the 7671 cases of TB studied, 4757 were men (62%) while 2914 were women (38%); sex ratio was 1.63. The difference was statistically significant ($\chi^2=442.8$; $p<0.001$). The annual incidence of tuberculosis decreased slightly between 2000 and 2004, from 130 to 102 cases per 100,000 inhabitants, and then it increased gradually to reach its maximum, which was 139 per 100,000 inhabitants, in 2012. Similarly, the study of annual changes in incidence by gender showed that TB incidence remained much higher in men than in women throughout the study period. In fact, it went from 131cases per 100,000 in 2004 to 172 in 2012 among men and from 74cases per 100,000 in 2004 to 107 in 2011 among women (Fig. 1) The average age of TB patients was 33.93 ± 17.97 years, while the median age was 28 years. In men the average age was 33.6 ± 17.1 years while 34.4 ± 19.2 in women, where the gender difference was statistically not significant ($F= 3.6$; $p>0.05$). The repartition by age groups showed a predominance of cases who were between 15-24 years (30.4%) followed by those who were between 25-34 years, and those who were between 35- 44 years respectively (Fig. 2). That showed that, the disease had affected preferentially the most active population. On the other hand, the specific lethality became important after the age of 45 years; which reached a maximum value of 7% in more than 65 years age group (Fig. 2). The repartition of patients according to the type of tuberculosis showed that, the pulmonary tuberculosis represented two thirds of all cases (58%) while pleural TB was the second and ganglionic TB was the third with 18% and 12% respectively (Fig. 3). It should be noted that Smear Positive Pulmonary Tuberculosis (PTB+) represents 88% of pulmonary TB cases. As far as season was concerned, we found that the number of cases was higher during spring and summer with 2196 and 1940 cases respectively, compared to autumn and winter with 1851 and 1684cases respectively; the difference was statistically significant ($\chi^2=71.4$; $p<0.001$). The evolution of patients was also investigated and the figure 4 shows that 45% of patients completed their treatment, with disappearance of all signs of the disease and improvement of the health (but without bacilloscopy), and that 34% of patients were cured with negative bacilloscopy. In addition, 89 deaths were reported during the period of study. It should be noted that 14% of patients were lost to follow-up, so their evolution was unknown (Fig. 4).		Ok Ok Ok

Furthermore, the annual change according to the evolution of patients displayed a remarkable and steady increase of the annual rate of success (completed treatment and recovery) from 95.6% in 2000 to 98.4% in 2012. In order to investigate the impact of age on the evolution of patients, we used one factor Anova which revealed a significant association ($F=54.2$; $p<0.001$). This means that the evolution depends on the age of the patient. The mean comparison method led to three groups of evolution according to the age (Fig. 5).	Ok
Indeed, the figure 5 shows that death occurs preferentially in the oldest patients (c), the average age of dead patients was 55.9 ± 19.7 years. On the other hand, we investigated the implication of age in the repartition of TB localizations using one factor Anova. The results displayed a statistically significant relation between TB localization and the patient age ($F=46.6$; $p<0.001$). The means comparison method led to seven groups of localizations according to the age (Fig. 6).	Ok
The results of figure 6 implied that ganglionic and cerebral TB occur preferentially in the younger patients (a), with an average age of 26.6 ± 17.7 years, whereas urogenital and pericardial TB occur in the older patients especially, with an average age of 45.7 ± 18.8 years. So as to study the association between TB localization and death, we calculated the relative risk of death for each localization (table 1). The results showed that patients suffering from pulmonary TB display a significantly higher risk of death compared to other patients ($RR= 1.58$; $IC_{95\%}= 1.01 - 2.467$). In contrast, the risk of death was significantly lower in patients with ganglionic TB ($RR= 0.08$; $IC_{95\%}= 0.01- 0.56$).	Ok

Furthermore, we calculated the relative risk of gender (females being exposed) for each TB localization in order to analyze the association between the gender of patients and the TB localization (table 2). The results **showed** that women present a significantly higher risk to contract ganglionic, **peritoneo-intestinal** and pericardial TB compared to men with respective risks of 2.49, 2.29 and 1.55. In contrast, the risk of contracting pulmonary TB **was** almost two times higher in **men** compared to **women** (table 2).