



Trachoma Prevalence Survey in the Kadiolo Health District

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ABSTRACT

Introduction

The purpose of this work was to study the trachoma situation in the Kadiolo health district in 2016 as part of post-endemic surveillance.

Methodology

This was a cross-sectional survey by random sampling in clusters at 2 degrees which took place in the Csréf of Kadiolo (ophthalmology department) from January 1 to 31, 2016.

Our study focused on **1457** children and adults in **3066** surveyed households.

Included were all children aged 1 to 9 and subjects aged 15 and over belonging to selected households in randomly chosen villages in the circle of Kadiolo and with their agreement.

Not included were all children under one year old and subjects aged 10 to 14 and those refusing or not belonging to the selected households.

The data was manually classified and entered into Microsoft Access (MAD) databases. EpiInfo or an additional, advanced statistical software was used to analyze the data.

Results

Our study found a prevalence of 0.23%. This is well below the elimination threshold recommended by the WHO (<5%).

Subjects over 15 years the prevalence of trichomatous trichiasis was 0.15 with IC (0.16 -1.07).

This decline in prevalence was attributable to the mass treatment carried out in the Kadiolo health district, the strengthening of personal and environmental hygiene, education for the change of behavior of the population through awareness sessions and information.

Conclusion

This study was carried out with the aim of evaluating the epidemiological situation of active trachoma (TF/TI) in children aged 1 to 9 years and that of trichomatous trichiasis (TT) in subjects aged 15 and over in the health district of Kadiolo. Regarding follicular trachoma (TF), the prevalence was <5% elimination threshold. To do this, it is necessary to stop the mass treatment and continue the actions of the N and CE sections relating to hygiene, sanitation and water supply and to IEC/trachoma to avoid a resurgence of the disease. disease.

Keywords: Active trachoma, Trichomatous trichiasis, Prevalence

INTRODUCTION

Trachoma is a chronic transmissible keratoconjunctivitis caused by Chlamydia trachomatis, causing inflammation of the conjunctiva (membrane lining the inner surface of the eyelids) and the formation of scars leading to blindness [1]. The evolution of trachoma extends over months or even years. First cause of avoidable blindness in the world, trachoma is still a public health problem in developing countries due to its particular blinding form. It generally occurs in rural areas with hot and dry climates where poor socio-economic living conditions, insufficient water and hygiene facilitate its spread, for which childhood pays a heavy price [2].

According to the WHO, trachoma is endemic in 51 countries and is responsible for visual impairment in nearly 1.8 million people, 500,000 of whom are irreversibly blind.

Nearly 232 million people live in trachoma-endemic areas and are at risk of infection [6]

A survey conducted throughout Mali and in sub-Saharan Africa in 1996 and 1997 by the National Program for the Fight against Blindness and the Institute of Tropical Ophthalmology of Africa (IOTA) revealed a prevalence of trachoma active (TF or TI) at 34.9% in children aged 0 to 10, a prevalence of intense trachoma (TI) at 4.2% in these same children. In females over 14 years of age the prevalence of entropion trichiasis was 2.5%. This showed that the prevalence of trachomatous disease was high in many areas exceeding the 20% threshold.

If nothing is done, the normal evolution of the disease will lead to irreversible blindness in most of these patients [6].

A World Health Assembly resolution in 1998 aimed for the elimination of trachoma as a public health problem by 2020.

The ALLIANCE for the Global Elimination of Blinding Trachoma by the Year 2020 (EMT 2020) or Global Elimination of trachoma for year 2020 (GET 2020) by developing a global strategy: the SAFE strategy which combines

CH= trichiasis surgery

A = Antibiotic therapy: antibiotic treatment of progressive forms

N = Facial cleansing.

EC= Environmental change: with a view to definitively eliminating trachoma [3]

The National Eye Health Program initiated this study to assess the epidemiological situation of trachoma after a few years of implementation of the "SAFE" strategy and as part of disease surveillance in order to have new data for the health district of Kadiolo.

MATERIALS AND METHOD

1. Framework of the study

Our study took place in the health district of Kadiolo

2. Type of study

This was a cross-sectional random sample survey in 2-stage clusters.

3. Study period

January 2016

4. Study population

These were children aged 1-9 and adults aged 15 and over in the Kadiolo health district

5. Inclusion criteria:

Were included, children from 1 to 9 years old and subjects aged 15 and over belonging to households selected from villages chosen at random in the circle of Kadiolo and with their agreement.

6. Criteria for non-inclusion:

Not included were children under one year old and subjects aged 10 to 14 and those refusing or not belonging to the selected households.

7. Method:

7.1 Measured variables

Quantitative variables

age, weight,

Qualitative variables

Gender, ethnicity, community of residence, presence or absence of ocular and nasal discharge (if 1 to 9 years old); and the presence or absence of different stages of trachoma.

8. Data analysis and processing

The data was manually classified and entered into Microsoft Access (MAD) databases. EpiInfo or an additional, advanced statistical software was used to analyze the data. Baseline data was collected daily.

RESULTS

In the sample from 1 to 9 years old, the female sex was more represented with 52.93%. From 1 to 9 years old, the age group of 1 to 4 years old was more represented with 53.01%. From 15 years and over, the female sex was more represented with 56.55%. From 15 years and over the age group from 20 to 59 years was more represented with 78.45%. Subjects aged 1 – 9 years the prevalence of Follicular Trachoma was 0.23% with a 95% CI [0.09-0.53]. There were no cases of intense trachoma. There is a significant difference between the appearance of the face and active trachoma $p > 0.05$. The appearance of the face is a factor that intervenes in the occurrence of trachoma. Subjects over 15 years the prevalence of trachomatous trichiasis was 0.15 with IC (0.16 -1.07). In the sample of subjects over 15 years of age, the prevalence of scarring trachoma was 0.31 with CI (0.14 -0.63). 0.51% of male subjects had tt against 0.39% for females. There is a significant difference between sex and the occurrence of tt with $p \sup a 0.05$. Subjects older than 1-9 years over 80% had a clean face with a CI (0.14 -0.63). More than half of the households surveyed had access to water

in the village. Just over 80% of households had a latrine with a 95% CI (79 - 81). All the latrines of the households surveyed were used.

CONCLUSION

This study was carried out with the aim of evaluating the epidemiological situation of active trachoma (TF/TI) in children aged 1 to 9 years and that of trachomatous trichiasis (TT) in subjects aged 15 and over in the health district of Kadiolo.

Regarding follicular trachoma (TF), the prevalence was <5% elimination threshold. To do this, it is necessary to stop the mass treatment and continue the actions of the N and CE sections relating to hygiene, sanitation and water supply and to IEC/trachoma to avoid a resurgence of the disease.

For trachomatous trichiasis (TT) the elimination threshold (0.1%) reached. It is therefore necessary to continue raising awareness for the acceptance of surgery. Active screening is required through combing in the villages.

Following all the above, the Kadiolo health district should benefit in a few years from pre-validation surveys in order to proceed with certification according to the WHO.

These encouraging results obtained meet the Sustainable Development Goals (SDGs) and the 2020 deadline for the right to sight. However, to maintain this momentum of lowering the frequency of TF (Follicular Trachoma), or even go beyond it, it is necessary to emphasize the strengthening of the components CH, N, CE (Surgery, Facial cleaning, Change of the Environment) of the SAFE strategy.

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ANNEX

Table I: Distribution of the sample of subjects from 1 to 9 years old according to sex

Gender	Frequency	Percentage
Male	547	47,07
Female	615	52,93
Total	1162	100,00

Table II: Distribution of the sample of subjects from 1 to 9 years old according to age

Age (year)	Absolute frequency	Percentage %
1 – 4	616	53,01
5 – 9	546	46,99
Total	1162	100,00

Table III: Breakdown of the sample of subjects aged 15 and over by gender

Sex	Absolute frequency	Percentage %
Male	633	43,45
Female	824	56,55
Total	1457	100,00

Table IV: Breakdown of the sample of subjects aged 15 and over by age

Age (year)	Absolute frequency	Percentage %
15 – 19	154	10,57
20 – 59	1143	78,45
60 and more	160	10,98
Total	1457	100,00

Table V: Distribution of the sample of subjects aged 1 to 9 years according to follicular trachoma status

Trachoma	Absolute frequency	Percentage %
Follicular (TF)		
Presence	6	0,23
Absence	2584	99,77
Total	2590	100,00

Table VI: Distribution of the sample of subjects aged 1 to 9 years according to follicular trachoma and facial appearance

Trachoma	facial appearance		Total
	Own	Dirty	
Presence	5	1	6
Absence	879	230	1109
Total	884	231	1115

Table VIII: Breakdown of the sample of subjects aged 15 and over according to trichomatous trichiasis status

Trichomatous Trichiasis (TT)	Absolute frequency	Percentage %
Presence	4	0,15
Absence	2585	99,85
Total	2589	100,00

Table VIII: Breakdown of the sample of subjects aged 15 and over according to the status of cicatricial trachoma (TS)

Cicatricial Trachoma (TS)	Absolute frequency	Percentage %
Presence	8	0,31
Absence	2582	99,69
Total	2590	100,00

Table IX: Distribution of the sample of subjects aged 15 and over according to trichomatous trichiasis and gender

Trichomatous trichiasis	Sex		Total
	Male	Female	
Presence	2	3	5
Absence	389	763	1152
Total	391	766	1157

Table X: Distribution of the sample of subjects from 1 to 9 according to the aspect of the face

facial appearance	Absolute frequency	Percentage %
Own	1006	81,33
Dirty	231	18,67
Total	1237	100,00

Table XI: Distribution of households surveyed according to access to water

Accessibility to water	Absolute frequency	Percentage %
In the household	1286	41,94
In the village	1780	58,06
out of town	00	00
Total	3066	100,00

Table XII: Distribution of households surveyed according to the presence of a latrine

Latrine coverage rate	Absolute frequency	Percentage %
Presence	2471	80,59
Absence	595	19,41
Total	3066	100,00