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ORIGINAL: FRENCH

METHODS OF TREATMENT WHICH MAY BE USED IN A MASS CAMPAIGN

by

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My learned colleagues attending this conference are well aware of the fact that the most important problem with which we are concerned in respect of trachoma is the treatment of the disease and the means of controlling it.

In this connection, I may say that since the time that this disease has been known by scientists of old civilizations, that is to say for some thousand years, this problem has ever obsessed the mind of trachomatologists and ophthalmologists. What must be done for the treatment of trachoma? This was the question which claimed most of their attention and activities. If you read the literature regarding this disease, you will note that references to this problem far outnumber those relating to other problems of trachomatology.

As the time available at this meeting is insufficient, I shall abstain from speaking of the history of trachoma therapeutics in general. I shall only inform you that the experiments on the treatment of trachoma in Iran were initiated by my colleagues and myself thirty years ago. We carried out numerous studies on mechanical treatment, electrocoagulation, sulphonamides and antibiotics, which were partially published in Iranian and foreign journals. However, when we knew about the programme of this conference, we decided to evaluate once more the methods of treatment with sulphonamides and antibiotics, which nowadays claim attention. For this reason, and in collaboration with Drs. Mohsenin, Darougar and Pirouz, we studied a certain number of patients. The results of our studies are given below.

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The Ophthalmological Section of Farabi Hospital has 200 beds. An important part of this section was assigned to our patients and we started our work in the following way:

1. Selection of patients

Among those affected by trachoma who were reporting daily to the various outpatient clinics of the Department of Ophthalmology at Farabi Hospital, we chose those showing an active and untreated trachoma, and kept them in bed in the section intended for this disease.

2. Diagnosis method

As regards the diagnosis before treatment and the study of its development under the action of the medicines used, we adopted the following methods:

a) Clinical diagnosis of trachoma

During this study, all clinical examinations were carried out with the slit lamp and the symptoms on which we based our diagnosis were the following:

- i) trachoma follicles,
- ii) scars,
- iii) trachoma pannus.

In addition to these symptoms, we considered also the objective and subjective symptoms of the patient.

b) Cytological diagnosis

Along with the clinical examinations, cytological studies were also carried out. To this end, we prepared for each examination two coloured smears, using Giemsa method.

The cytological changes on which we based our diagnosis of trachoma, and which in our opinion are characteristic of the infection, are:

- i) presence of inclusions in the epithelial cells of the conjunctiva, in the forms of elementary and initial bodies,
- ii) presence of degenerated lymphoblasts,
- iii) presence of fibroblasts,
- iv) presence of plasmocytes in considerable numbers,
- v) presence of macrophages in rather large quantities.

Other cellular variations which contribute in a certain way to the diagnosis of trachoma were also taken into account.

c) Anatomopathological diagnosis:

In certain cases, the anatomopathological examination was carried out for the diagnosis of trachoma, but as the scars which develop after taking the anatomopathological specimen may modify the morbid process, this was not done for all patients.

d) Artificial inoculation

In some cases, in order to record the improvement of trachoma and the disappearance of the virus, conjunctival and tarsal inoculation was carried out in the patients undergoing treatment.

3. Drugs used

During this study, the following drugs were used:

- i) Sulphonamide, namely Elcozine, Midicel and Lederkyn,
- ii) Antibiotics such as achromycin, aureomycin, terramycin, erythromycin and ilotycin.

In view of the above, the details of our method consist of:

- a) The selection of the sick among those who attend the ophthalmological section, and their admission to hospital for more than four months.
- b) Clinical and cytological examination to diagnose trachoma definitely before starting treatment.
- c) Twice weekly clinical examination of the sick, during the period of treatment.
- d) Weekly cytological examination during the treatment.
- e) Anatomopathological examination of some patients before starting treatment.
- f) Examination by means of experimental inoculation in some cases where an apparent noticeable improvement was noted.
- g) Before starting treatment, colour photographs were taken of the conjunctiva, the cornea and cytological changes, and, afterwards similar photographs were taken a fortnight later, to record the evolution of trachoma.

The attached tables show the degree of efficacy of the various drugs on trachomatous patients:

Table I - Treatment of trachoma with Elcozine

Table II - Treatment of trachoma with Midicel and Lederkyn

- Table III - Treatment of trachoma with Achromycin
Table IV - Treatment of trachoma with Aureomycin
Table V - Treatment of trachoma with Terramycin
Table VI - Treatment of trachoma with Ilotycin and Erythromycin.

CONCLUSION

As it appears from the attached tables, we tested a certain number of sulphonamides and antibiotics on active and advanced trachoma in order to be able to observe minutely their effects on the patients and make a comparison between these various drugs.

The general conclusion which may be drawn is that sulphonamides and antibiotics do not cure trachoma; only some of them have reduced the symptoms of trachoma.

Apart from the above-mentioned drugs used in the course of this study, I studied personally for several years the effects of diathermocoagulation on this disease, and as I mentioned in detail in my report to the International Congress of Ophthalmology, convened in 1954, I consider that only diathermocoagulation may do away with the trachoma virus and cure it thoroughly. As I have set forth at length in that report the results of my studies which were supported by clinical, cytological, anatomopathological and colour photographic evidence, I shall not repeat them here.

* * *

What I have related in this report to this learned gathering deals only with the methods of individual treatment of trachoma. For mass treatment, or rather for mass campaigns, one must consider the following points:

1. We know that trachoma is conveyed generally from one individual to another when there is secretion or lacrimation. As villagers and inhabitants of rural areas do not comply with the rules of hygiene, direct contacts between people aggravate the risk of contagion.
2. Secondary forms of infectious conjunctivitis aggravate in the first place trachoma symptoms and with constant irritation they increase the complications of the disease.
3. In Iran, pure trachoma is mild, and in most cases, it heals up without leaving sequelae.

4. Flies play an important rôle in the spreading of trachoma, mainly when the eye shows purulent secretions.

5. A soiled and unclean environment, poor sanitation as well as under-nourishment, are contributing factors in the spread of trachoma.

Considering the above facts, we deem that:

1. As long as in a community the cultural, sanitary and sanitation levels are not high, trachoma control, either mass or individual, will not give satisfactory results. That is why in any trachoma control programme, one must consider the raising of the cultural, health and sanitation levels;

2. As secondary infectious conjunctivitis plays an important rôle in the spreading of trachoma and as it leads to complications, we think that the control measures against such conjunctivitis must be emphasized. To achieve this objective, we propose to determine first in a given area, the aetiology of infectious conjunctivitis by means of the antibiogramme test or therapeutic test of various pharmaceutical drugs, and afterwards to carry out control measures. Sulphonamides and antibiotics could well be used for that purpose.

3. With repeated examinations, cases of positive trachoma must be isolated and subjected to a radical treatment.

In my opinion, each contaminated region should be provided with diathermocoagulation facilities. The team leader of trachoma control measures, who will usually be an oculist or a trachomatologist experienced in the method of use of these appliances, will also start treating active cases of the disease.

4. In the selected region, one must bear in mind the individuals suffering from trachoma complications, who may be threatened by blindness.

Because of this, when the implementation of a control programme against that disease is envisaged, surgical and medical facilities must be available for the treatment of its complications - thus, preventing the increase of cases of blindness.

Mode d'emploi: Voie buccale

TABLEAU N°1

EN/Trach. Conf., 14

Dose: 8 comprimés par jour, pendant 10 jours; ensuite un repos de 10 jours, et puis encore 10 jours de médicament. (Adulte)
Enfant : selon l'âge

TRAITEMENT DU TRACHOME AVEC:
Elcosine
(6 - Sulfanilamido -2,4 - dimethylpyrinidine)

Numéro des malades	Examen clinique	Examen cytologique		Examen anatomo-pathologique	Durée du traitement	Durée de l'observation	Etudes particulières
		Inclusion	Variations cellulaires				
E1/1 (18 ans)	Av.le tr III F++P++C++ trait. V ⁶ I ⁶	-	tr III	tr III	4 mois	7 mois	
	Ap.le tr III F+P++C++ trait. V ⁴ I ⁶	-	tr III		4 mois		
E1/2 (12 ans)	Av.le tr II F++P+V ⁴ I ⁴ trait.	+	tr II	tr II			
	Ap.le tr II F+P++V ⁴ I ⁴ trait.	-	tr II				
E1/3 (4 ans)	Av.le tr I F+P++V ¹ I ¹ trait.	++	tr II				
	Ap.le tr I F+P+V ¹ I ¹ trait.	-	tr II				
E1/4 (7 ans)	Av.le tr II F+++P+V ³ I ³ trait.	-	tr II				
	Ap.le tr II F++P++V ³ I ³ trait.	-	tr II				
E1/5 (23 ans)	Av.le tr III F++P++C++ trait V ⁴ I ⁴	-	tr III				Broyat de tarse inoculé à un sujet 4 mois après le traitement, a donné un résultat positif
	Ap.le tr III F+P+C++ trait. V ⁴ I ⁴		tr III				
E1/6 (14 ans)	Av.le tr II F+++P+++ trait. V ² I ²	-	tr II				
	Ap.le tr II F++P+V ² I ² trait.	-	tr II				
E1/7 (9 ans)	Av.le tr II F+P++ trait. V ⁵ I ⁵	-	tr II				
	Ap.le tr II F+P++ trait. V ⁵ I ⁵	-	tr II				
E1/8 (11 ans)	Av.le tr II F+++P++ trait. V ³ I ³	-	tr II				
	Ap.le tr II F++P++ trait. V ³ I ³	-	tr II				

TABLEAU No. 2 A

EM/Conf.trach./14

Mode d'emploi: Voie
buccale.

TRAITEMENT DU TRACHOME AVEC:

Midicel

Dose: 4 comprimés le
1er jour et 1
comprimé à partir
du 2ème.

(Sulfamethoxypyridazine, P.D.
& Co., 3-sulfanilamido-6-
methoxypyridazine)

(Adulte) Enfant:
selon l'âge.

Numéro des malades	Examen clinique	Examen cytologique		Examen anatomo- pathologique	Durée du traitement	Durée de l'obser- vation	Etudes parti- culières
		Inclu- sion	Variations celulaires				
M/1 (5 ans)	Av. le tr III F+++P+ trait. V ⁴ I ⁴	+	tr II	tr II	1 mois	4 mois	
	Ap. le tr III F+P+C+ trait. V ⁴ I ⁴	-	tr III	-			
M/2 (19 ans)	Av. le tr II F+++P++ trait. V ⁵ I ⁵	+	tr II	-			
	Ap. le tr III F++P+ trait. C+ V ⁵ I ⁵	-	tr III	-			
M/3 (5 ans)	Av. le tr II F+++ trait. V ² I ²	+	tr II	-			
	Ap. le tr II F++ trait. V ² I ²	-	tr II	-			Broyat de tar- se, i- noculé à un sujet 4m apr. le trait. a donné résultat positif
M/4 (20 ans)	Av. le tr III F+C++ trait. V ⁴ I ⁴	-	tr III	tr III			
	Ap. le tr III F+C++ trait. V ⁴ I ⁴	-	tr III				
M/5 (7 ans)	Av. le tr I F+P++ trait. V ¹ I ¹	+	tr II				
	Ap. le tr I P+ trait. V ¹ I ¹	-	tr II				
M/6 (5 ans)	Av. le tr I F+P+ trait. V ² I ²	+	tr II				
	Ap. le tr I F+P+ trait. V ¹ I ¹	-	tr II				
M/7 (13 ans)	Av. le tr II F++P++ trait. V ³ I ³	-	tr II				
	Ap. le tr II F+P+C+ trait. V ³ I ³	-	tr III				
M/8 (16 ans)	Av. le tr II F+++P+ trait. V ⁴ I ⁴	-	tr II				
	Ap. le tr II F++P+ trait. V ⁴ I ⁴	-	tr II				
M/9 (22 ans)	Av. le tr III F+P++ trait. C+ V ⁵ I ⁵	-	tr III				
	Ap. le tr III F+P+ trait. C+ V ⁵ I ⁵	-	tr III				

Numéro des malades	Examen clinique	<u>Examen cytologique</u>		Examen anatomo- patholo- gique	Durée du trai- tement	Durée de l'obser- vation	Etudes parti- culières
		Inclu- sion	Variations cellulaires				
M/10 (27 ans)	Av. le tr ^{III} F+P+C+ trait. V ³ I ³	-	tr III				
	Ap. le tr ^{III} F+P+C++ trait. V ³ I ³ -	-	tr III				

TABLEAU 2 B

Mode d'emploi: Voie buccale

Dose: 4 comprimés le 1er jour et 1 comprimé à partir du 2ème (Adulte)

Enfant: Selon l'âge

TRAITEMENT DU TRACHOME AVEC:

Lederkyn

(Sulfamethoxypyridazine 3-sulfanilamido-6-methoxy-pyridazine)

Numéro des malades	Examen clinique	Examen cytologique		Examen anatomo-pathologique	Durée du traitement	Durée de l'observation	Etudes particulières
		Inclusion	Variations cellulaires				
L/1 (5 ans)	Av.le tr II F++ V ² I ² trait.	+	tr II	tr II	1 mois	4 mois	
	Ap.le tr F++ V ² I ² trait.	-	tr II	-			
L/2 (3 ans)	Av.le tr II F++ trait.	+	tr II	-			A cause du jeune âge du malade, nous n'avons pas vu de pannus
	Ap.le tr II F++ trait.	+	tr II				
L/3 (10 ans)	Av.le tr II F++ P+ trait. V ² I ² (E.B.)	+	tr II	tr II			
	Ap.le tr II F++ P+ trait. V ² I ²	-	tr II				
L/4 (8 ans)	Av.le tr II F++ P++ trait. V ³ I ³	-	tr II				
	Ap.le tr II F++ P++ trait. V ³ I ³	-	tr II				
L/5 (4 ans)	Av.le tr I F+ V ¹ I ¹ trait.	+	tr II				
	Ap.le tr I F+ P+ V ¹ I ¹ trait.	-	tr II				
L/6 (6 ans)	Av.le tr I F++ P+ trait. (Pas de pannus)	+	tr II				
	Ap.le tr I F+ P+ trait.	-	tr II				
L/7 (10 ans)	Av.le tr II F+++ P++ trait. V ⁶ I ⁶	-	tr II				
	Ap.le tr III F++ trait. P+G+ V ⁵ I ⁵	-	tr III				
L/8 (15 ans)	Av.le tr III F+P++ trait. C+ V ³ I ³	-	tr III				
	Ap.le tr III F+P+ trait. C++ V ³ I ³	-	tr III				
L/9 (18 ans)	Av.le tr II F++ P+ trait. V ⁴ I ⁴	-	tr II				
	Ap.le tr II F++ P+ trait. V ⁴ I ⁴	-	tr II				
L/10 (21 ans)	Av.le t. III F++ trait. P C++	-	tr III				
	Ap.le t. III F+P++ trait. C++	-	tr III				

TABLEAU No. 3

EM/Conf.Trach./14

Mode d'emploi: capsules, TRAITEMENT DU TRACHOME AVEC:
pommade et collyre.

Achromycine

Dose employée: Une capsule toutes les six heures, suivant l'âge. 10 jours (Hydrochloride Tetracycline HCl Crystalline)

Pommade: Une fois par jour. 4 mois.

Collyre: trois fois par jour. 4 mois.

Numéro des malades	Examen clinique	Examen cytologique	Examen anatomo-pathologique	Durée du traitement	Durée de l'observation	Etudes particulières
	Inclusion	Variations cellulaires				
Ach/1 (16 ans)	Av.le Tr II F+++P++ trait. V ⁶ I ⁶	-	tr II	tr II	4 mois	6 mois
	Ap. le Tr III F+ P+ trait. C++ V ² I ²	-	tr III	-		
Ach/2 (7 ans)	Av.le Tr II F+++P++ trait. V ⁶ I ⁶	+	tr II	-		
	Ap. le Tr II F+++P++ trait. V ⁵ V ⁵	-	tr II	-		
Ach/3 (22 ans)	Av.le Tr II F+++P++ trait. V ⁴ I ⁴	+	tr II	-		
	Ap. le Tr II F+++P++ trait. V ⁴ I ⁴	-	tr II	-		
Ach/4 (17 ans)	Av. le Tr II F+++P++ trait. V ⁶ I ⁶	-	tr II	-		
	Ap. le Tr II F++P++C+ trait. V ⁴ I ⁴	-	tr III	-		
Ach/5 (13 ans)	Av. le Tr II F++P++C+ trait. V ⁴ I ⁴	-	tr III			
	Ap. le Tr III F++C++ trait. V ⁴ I ⁴	-	tr III			
Ach/6 (19 ans)	Av. le Tr II F+ V ³ I ³ trait.	+	tr II			
	Ap. le Tr II F+ V ³ I ³ trait.	-	tr II			
Ach/7 (7 ans)	Av. le Tr I F+ P+ V ¹ I ¹ trait.	+	tr II			
	Ap. le Tr I P+ V ¹ I ¹ trait.	-	tr II			
Ach/8 (5 ans)	Av. le Tr I F++P++V ¹ I ¹ trait.	+	tr II			
	Ap. le Tr I F+ P+ V ¹ I ¹ trait.	-	tr II			

Numéro des malades	Examen clinique	Examen cytologique		Examen anatomopatholo- gique	Durée du trai- tement	Durée de l'obser- vation	Etudes parti- culière- res
		Inclu- sion	Variations celulaires				
Ach/9 (12 ans)	Av. le Tr IIF++P+ trait. V ³ I ³	-	tr II				
	Ap. le Tr IIIIF+P+C+ trait. V ³ I ³	-	tr III				
Ach/10 (19 ans)	Av. le Tr IIF+P+++ trait. V ⁵ I ⁵	-	tr II				
	Ap. le Tr IIP+C++V ⁵ I ⁵ trait.	-	tr III				
Ach/11 (17 ans)	Av. le Tr IIIIF+P+C++ trait. V ⁴ I ⁴	-	tr III				
	Ap. le Tr IIIIP+C++V ⁴ I ⁴ trait.	-	tr III				
Ach/12 (30 ans)	Av. le Tr IIIIF++P+C+ trait. V ² I ²	-	tr III				
	Ap. le Tr IIIIF+P+C++ trait. V ² I ²	-	tr III				

TABLEAU No. 4

EM/Conf. trach./14

Mode d'emploi: Voie buccale et pommade ophtalmique.

TRAITEMENT DU TRACHOME AVEC:

Auréomycine

(Chlotetracycline)

Dose: Une capsule toutes les 6 heures. Selon l'âge; 10 jours

Pommade: Trois fois par jour. 4 mois

Numéro des malades	Examen clinique	Examen cytologique Inclusion Variations cellulaires	Examen anatomo-pathologique	Durée du traitement	Durée de l'observation	Etudes particulières
A/1 (7 ans)	Av. le tr II F++P++ trait. V ⁴ I ⁴	+ (E.B.)	tr II	tr II	4 mois	6 mois
	Ap. le tr II F++P++ trait. V ⁴ I ⁴	-	tr II	tr II		Les follicules s'étaient réduits et devenus blanchâtres
A/2 (5 ans)	Av. le tr II F++P++ trait. V ² I ²	-	tr II			
	Ap. le tr II F++P++ trait. V ² I ²	-	tr II			Les follicules étaient réduits
A/3 (12 ans)	Av. le tr II F++P++ trait. V ⁴ I ⁴	+	tr II	-		
	Ap. le tr III F++P+C+ trait. V ⁴ I ⁴	-	tr III	-		
A/4 (9 ans)	Av. le tr I F++P+ trait. Pas de panus	+	tr II			
	Apr. le tr I F+ P+ trait.	-	tr II			
A/5 (4 ans)	Av. le tr I F+ P+ trait. V ² I ²	+	tr II			
	Ap. le tr I P+ V ² I ² trait.	-	tr II			
A/6 (15 ans)	Av. le tr II F++P++ trait. V ³ I ³	-	tr II			
	Ap. le tr II F+P+ trait. V ² I ²	-	tr II			
A/7 (17 ans)	Av. le tr III F++P+C+ trait. V ⁴ I ⁴	-	tr III			
	Ap. le tr III F++P+C+ trait. C++ V ⁴ I ⁴	-	tr III			
A/8 (22 ans)	Av. le tr III F++C++ trait. V ² I ²	-	tr III			
	Ap. le tr III F++C++ trait. V ² I ²	-	tr III			

Numéro des malades	Examen clinique	Examen cytologique		Examen anatomopatholo- gique	Durée du trai- tement	Durée de l'obser- vation	Etudes parti- culières
		Inclu- sion	Variations cellulaires				
A/9 (18 ans)	Av. le tr IIF+++P+ trait. V ⁵ I ⁵	-	tr II				
	Lip. le tr II F++P++ trait. V ⁴ I ⁴	-	tr II				

TABLEAU NO. 5

En/Trach, conf., 14

Mode d'emploi: Voie buccale et pommade ophtalmique.

Dose: Une capsule toutes les 6 heures. 10 jours, selon l'âge.

Pommade: Trois fois par jour. 4 mois.

TRAITEMENT DU TRACHOME AVEC:

Terramycine

(Oxytetracycline hydrochloride et oxytetracycline cristalline)

Numéro des malades	Examen clinique	Examen cytologique		Examen anatomo-pathologique	Durée du traitement	Durée de l'observation	Etudes particulières
		Inclusion	Variations cellulaires				
Te/1 (6 ans)	Av. le tr III F+++ P++ trait. C+ V ³ I ³	-	tr III	-	4 mois	6 mois	
	Ap. le tr III F+++ P++ trait. C+ V ³ I ³	-	tr III				
Te/2 (25 ans)	Av. le tr III F+ P++ trait. C++/Kérat.	-	tr III				
	Ap. le tr III F+ G++/ trait. kérat.	-	tr III				
Te/3 (14 ans)	Av. le tr II F+++ P++ trait. V ² I ²	+	tr II				
	Ap. le tr III F+P++C+ trait. V ² I ²	-	tr III				
Te/4 (17 ans)	Av. le tr II F++P+ trait. V ⁴ I ⁴	+	tr II				
	Ap. le tr III F+ P+ trait. C++V ⁴ I ⁴	-	tr III				
Te/5 (9 ans)	Av. le tr II F++P++ trait. V ⁵ I ⁵	-	tr II				
	Ap. le tr II F+P++C+ trait.	-	tr III				
Te/6 (16 ans)	Av. le tr II F++P++ trait. V ² I ²	+	tr II				
	Ap. le tr III F+P++C+ trait.	-	tr III				
Te/7 (15 ans)	Av. le tr III F+++P+C+ trait. V ³ I ³	-	tr III				
	Ap. le tr III P+C++ trait. V ² I ²	-	tr IV				
Te/8 (5 ans)	Av. le tr I F+ P+ trait. V ¹ I ¹	+	tr II				
	Ap. le tr I P+ V ¹ I ¹ trait.	-	-				
Te/9 (6 ans)	Av. le tr I F++P++ trait. V ² I ²	+	tr II				
	Ap. le tr I F+ P+ trait. V ² I ²	-	tr II				
Te/10 (12 ans)	Av. le tr II F+++P+++ trait. V ⁵ I ⁵	-	tr II				
	Ap. le tr II F+P++ trait. V ⁵ I ⁵	-	tr II				
Te/11 (10 ans)	Av. le tr II F++P+ trait. V ⁴ I ⁴	-	tr II				
	Ap. le tr II F+P+C+ trait. V ⁴ I ⁴	-	tr III				

Numéro des malades	Examen clinique	Examen cytologique		Examen anatomo- patholo- gique	Durée du trai- tement	Durée de l'obser- vation	Etudes parti- culières
		Inclu- sion	Variations cellulaires				
Te/12 (28 ans)	Av. le tr ^{III} F+ P+ trait. C++ V ³ I ³	-	tr III				
	Ap. le tr ^{III} P+ G+++ trait. V ² I ²	-	tr III				
Te/13 (32 ans)	Av. le tr ^{III} F++ C++ trait. V ⁴ I ⁴	-	tr III				
	Ap. le tr ^{III} F+ C++ trait. V ⁴ I ⁴	-	tr III				

TABLEAU No. 6

EM/Conf.trach./14

Mode d'emploi : Pommade
ophtalmique.

TRAITEMENT DU TRACHOME AVEC:

ErythromycineDose : Trois fois par
jour. 6 mois

Numéro des Malades	Examen clinique	Examen cytologique		Examen anatomo- pathologique	Durée du traitement	Durée de l'obser- vation	Etudes parti- culières
		Inclu- sion	Variations cellulaires				
Eryth/1 (13 ans)	Av. le tr I F+ trait. V ¹ I ¹	++	tr II	-	6 mois	6 mois	
	Ap. le tr I F+ trait. V ² I ²	-	tr II				
Eryth/2 (12 ans)	Av. le tr II F+++P++ trait. V ⁵ I ⁵	-	tr II				
	Ap. le tr II F++P++ trait. V ⁵ I ⁵	-	tr II				
Eryth/3 (14 ans)	Av. le tr I F+ trait. V ¹ I ¹	+	tr II				
	Ap. le tr I F+ trait. V ¹ I ¹	-	tr II				
Eryth/4 (15 ans)	Av. le tr II F+++P+ trait. V ³ I ³	-	tr II				
	Ap. le tr II F+++ P++ trait. V ³ I ³	-	tr II				
Eryth/5 (9 ans)	Av. le tr II F++ trait. P+++ V ⁴ I ⁴	-	tr II	tr II			
	Ap. le tr II F+P++ trait. V ⁴ I ⁴	-	tr II				
Eryth/6 (23 ans)	Av. le tr III F+P++ trait. C++ V ³ I ⁴	-	tr III				
	Ap. le tr III F+P+ trait. C++	-	tr III				