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**Key passages**

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COMPARATIVE EXPERIMENTS IN MASS  
PROPHYLAXIS OF MALARIA BY MEANS OF  
QUININE AND OF SYNTHETIC DRUGS  
(QUINACRINE AND PRAEQUINE)

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PANORAMIC VIEW OF PART OF THE DISTRICT TREATED.

The village of Taourirt is on the left, Taouria in the cliff-side on the right, with the Qued el Abiodh and the palm-groves in the middle.

## 2. THE DIFFERENT SECTORS OF EXPERIMENT.

The villages were divided into three sectors :

- (1) Prophylaxis sector ;
- (2) Treatment sector ;
- (3) Control sector.

In accordance with the prearranged plan, blood samples (one smear and three thick drops) were taken from the whole population then present at R'oufi, twice a month at fifteen days' interval from April 1st to December 31st, 1935, and once a month from January 1st to May 31st, 1936, with a view to establishing the parasite and gametocyte indices.

The splenic and splenometric indices were ascertained in March 1935, before the experiments began, in November 1935, at the end of the prophylactic treatment period, and in May 1936, at the end of the observation period.

The exceptional rainfall of the summer of 1935 caused repeated flooding of the Oued el Abiodh, which several times swept away the anopheles breeding-places and prevented the complete development of the larvæ ; in fact, the adult mosquitoes practically disappeared. It was therefore impossible to obtain the sporozoite indices, and *there was no summer and autumn malaria epidemic in R'oufi in 1935.*

This abnormal situation entirely modified the conditions and aim of the experiments. As it had become impossible to obtain data concerning the real prophylactic action of the drugs used, the opportunity—very rarely found in a malarial country, and therefore particularly fortunate—arose of following up the natural evolution of the residual infection left over from previous epidemics in an entire community momentarily removed from any contamination or reinfection, and also of ascertaining the exact influence of the drugs on individual parasitism, without intercurrent contaminations or reinfections affecting the results obtained.

### 3. CONTROL SECTOR.

Two native villages situated at the entrance to the canyon of the Oued El Abiodh had been selected to serve as “controls” for both the prophylaxis experiment proper and the treatment experiment.<sup>1</sup>

Although—since we are here dealing with natural malaria and human subjects infinitely varied in their individual reactions and their greater or lesser exposure to infection—such controls cannot be compared with laboratory subjects, so far as experimental conditions are concerned, their general behaviour, however, compared with that of protected communities, throws light by contrast on the results of the prophylaxis and defines them more accurately.

<sup>1</sup> Care was therefore taken, however much the fact may have been regretted, to distribute no anti-malaria drugs in these villages. The absence of the annual malaria epidemic made it possible to keep to this rule to the very end; it would have been very difficult to maintain it under other circumstances.