ing countries), it should preclude the need for more hybrids as long as *Bt*-gene is the same in all hybrids! The response of the authors was a diabolical turn around. They say they *did not extrapolate numerical findings across India or other regions of the world and did not argue that the existing Bt hybrids are suitable for all parts of India*. *Bt*-hybrids showed also problems of coping with drought and viruses in a commercial scale but not related with the *Bt* gene. *The Bt gene (and other effective pest-resistance mechanisms) can lead to important yield effects in regions where pest pressure is high and is not well controlled by chemical pesticides. This hypothesis is backed by crop protection theory and empirical evidence from other countries. This is a very logical and simple statement, but it has not previously been articulated very clearly. Generally speaking, these conditions are often found in poor countries of the tropics and sub-tropics, especially in the small farm sector. Again, exact numbers should not be extrapolated*. It is then evident that they exhorted what they wanted regardless of the non-supportive data they analysed in support. It is perplexing that such a study could find its way to a journal like *Science* and it has come in handy to outscore a different reality of *Bt* cotton[3].

A study in Andhra Pradesh details the failure of *Bt* cotton hybrid, *Bt* Mech 162 (whether the same hybrid was used in the study of Q&Z is not known) both in small and large farms. A grievous farmer observed that *Bt* cotton fetched Rs 1300 a quintal compared to Rs 2600 of the popular variety Bunny. As the lint was less, seeds were more and the staple length was a clear 10 mm less than Bunny, there were not many buyers for *Bt* cotton. Despite being a newspaper report, it cites cotton scientists who concurred with the unfavourable market traits of *Bt* cotton. Similar results were also recently reported[3].

Reliable and consistent data in favour of GM cotton have yet to emerge from fair and large scale farmers' trial executed with every scientific norm. Equally important is the need to analyse all relevant data including quality parameters and market and marketability characteristics. Until then, GM crops and GM cotton can only enjoy a preferential lobby with little translation to ground reality.

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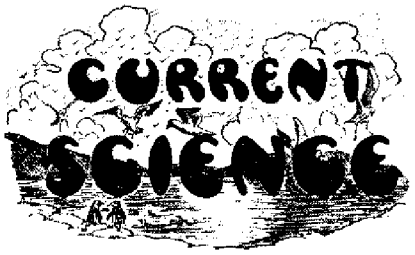

Vol. XI] MAY 1942 [NO. 5

Thiazole derivatives of sulphanilamide in monkey malaria

Certain sulphonamides like sulphanilamide, sulphapyridine and sulphathiazole have been shown to possess a curative property against experimental malarial infections in monkeys (See Dikshit, B. B. and Ganapathi, K., *J. Mal. Inst. Ind.*, 1940, **3**, 525). The author has tried two new thiazole derivatives of sulphanilamide (i) 2-N^1-sulphanilamido-5-ethylthiazole and (ii) N^1-methyl-sulphathiazole in several infections, bacterial and protozoal, including malarial infection in monkeys. The present note is concerned only about the malarial infection. The drugs were prepared by Ganapathi, K., Shirsat, M. V. and Deliwala, C. V., *Proc. Ind. Acad. Sci.*, 1941, **14A**, 630 in the Chemotherapy Department of the Haffkine Institute and supplied by that department.

Rhesus monkeys infected with *Plasmodium knowlesi* were used for the purpose. When the infection had reached a moderate degree (about 10 parasites per 10,000 R.B.Cs) the drugs were administered orally by a stomach tube. The dose administered was 1 g twice a day for 3 consecutive days. It was found that after administration of these drugs the parasites disappeared completely from the peripheral blood in 4 days. It was further observed that there was no relapse in the monkeys treated with these drugs while controls similarly treated with atebrine showed a relapse. The question of a radical cure was therefore investigated in the case of animals treated with 2-N^1-sulphanilamido-5-ethylthiazole. It was found that the blood of animals treated with this drug was not infective to normal animals 20 days after the disappearance of the parasites from the peripheral blood and the animals so treated were as susceptible to fresh infection as normal animals. It was therefore concluded that 2-N^1-sulphanilamido-5-ethylthiazole produces a radical cure in Rhesus monkeys infected with *P. knowlesi*. Cure of *knowlesi* infection in monkeys does not necessarily mean that the drug will be effective in human malaria also and investigations on this point along with the pharmacological investigations are being undertaken.

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