

MOSQUITOES AND FEVER IN SUŚRUTA.

The stings of insects, together with the mode of their treatment, are discussed by Suśruta in the chapter on Insects (Kīṭakalpaḥ) which forms the last section of the book on Poisons (Kalpasthānam). There he says: "17. There are six Makṣikās (flies or bees), called respectively Kāntārikā, Kṛṣṇā, Piṅgalikā, Madhūlikā, Kāṣāyī, and Sthālikā. If a man is stung by one of these, there will be heat, and swelling (of the part). So in the case of a Sthālikā or a Kāṣāyī, when, however, there will be, moreover, dangerous boils. 18. There are five Maśakās (mosquitoes or gnats), called respectively Sāmudraḥ, Parimaṇḍalaḥ, Hastimaśakaḥ, Kṛṣṇaḥ, and Pārvatiyaḥ. If a man is stung by one of these, there will be violent itching and swelling of the bitten part. But the Pārvatiya produces the same symptoms as deadly insects."

17. makṣikāḥ kāntārikā kṛṣṇā piṅgalikā madhūlikā kāṣāyī
sthālikety evaṃ ṣaṭ |
tābhir daṣṭasya dāhaśophau bhavataḥ |
sthālikākāṣāyībhyām etad eva piḍakās ca sopadravā
bhavanti ||
18. maśakāḥ sāmudraḥ parimaṇḍalo hastimaśakaḥ kṛṣṇaḥ
pārvatiya itī pañca |
tair daṣṭasya tivrakaṇḍūr daṃśaśophaś ca |
pārvatiyas tu kīṭaiḥ prāṇaharais tulyalakṣaṇaḥ ||

The remedies to be applied are the same as in the case of ant-stings. "32. For those stung by Pipilikās (ants), Makṣikās, or Maśakās, an ointment mixed with cow's urine is prescribed, as well as the earth of an ant-hill of black ants."

32. pipilikābhir daṣṭānām makṣikāmaśakais tathā |
gomūtreṇa yuto lepaḥ kṛṣṇaḥ tulyalakṣaṇaḥ ||

These quotations from the excellent edition of Suśruta

published by the late Vaidya Prabhuram in 1901, with which the earlier editions of Suśruta literally agree in the present case, show that fever is not among the symptoms produced by the stings of mosquitoes and similar insects, according to Suśruta. Conversely, in the chapter on Fever (vi, 39), he does not mention the stings of insects among the various causes of fever, and true malarial fever, such as tertian and quartan fever, is entirely due to derangement of the humours, according to Suśruta (vi, 39, 9). Nor can Suśruta's observations, at the beginning of the Kīṭakalpaḥ, regarding the derangement of air, of bile, or of phlegm, or of all the three humours together, by the four principal classes of insects, and the causation of diseases due to deranged air, etc., by the stings of these insects, be said to presuppose an acquaintance with the spreading of malaria through mosquitoes. These introductory remarks, as shown by the analogous statements on the effects of snake poison (Section iv of the Kalpasthānam), are merely intended to illustrate the dangerous nature of insect stings.

If, therefore, the native books on medicine in Ceylon have anticipated the discovery of our modern scientists of the connection between malaria and mosquitoes, their authors must have arrived at that discovery independently of Suśruta, whose doctrines seem to be generally followed in the medical lore of Ceylon. It may be added that the other standard writers on medicine in India, such as Charaka, Vāgbhaṭa, and the author of the Mādhava Nidāna, entirely agree with Suśruta on the point under notice. It is true that fever is mentioned by Vāgbhaṭa (vi, 37, 5) among the ordinary symptoms produced by all stings of insects, but this is evidently the wound-fever which is generally mentioned as one of the principal kinds of fever, and not malaria.

The point is of very considerable historical interest; and is stated, in the public press, to have been referred to at the last Anniversary Meeting of the Ceylon Branch of our Society. I have not had the advantage of seeing any official report of what was said on that occasion; but it would be very desirable that the notice taken of the question should

560

THE BAILLIE COLLECTION.

lead to the publication of any passages there may be in
Ceylon books on medicine bearing on the point.

J. JOLLY.

Würzburg (Bavaria).
April 22nd, 1905.