A Naturally Acquired Infection of *Plasmodium brasilianum* in the Marmoset, *Saguinus geoffroyi*

Extensive surveys on primate hosts for *Plasmodium brasilianum* in Central and South America have been recorded by Dunn and Lambrecht (1963, J. Parasit. 49: 316-319), Marinkelle and Grose (1968, Trop. Geogr. Med. 20: 276-280), and Deane et al. (1969, Rev. Inst. Med. Trop. São Paulo 11: 71-86). A review by Young (1970, Lab. Anim. Care 20: 361-367) lists at least 17 species of cebid monkeys in the genera Alouatta, Ateles, Brachyteles, Cacajao, Callicebus, Chiroptes, Lagothrix, Cebus, and Saimiri to be infected in the tropical New World. Callithricid primates (marmosets and tamarins) have not been shown to be natural hosts of *P. brasilianum* or any other species of malaria.

Prevalence rates of malaria in nonhuman primates received over a 35-year period at the Gorgas Memorial Laboratory were published by Porter, Johnson, and De Sousa (1966, J. Parasit. 52: 669-670). They reported that 749 Panamanian marmosets, *Saguinus geoffroyi*, were examined and found negative. An additional 1,015 wild-caught *S. geoffroyi* were checked for blood parasites from January 1966 to December 1968. In August 1968 for the first time a marmoset was discovered harboring a patent malaria infection, *P. brasilianum*. The infected subject was a male adult captured near Pacora in the Province of Panama, 24 miles east of Panama City. Blood smears of 566 *S. geoffroyi* originating from that area have been free of plasmodia.

The parasitemia in the marmoset, upon arrival at the laboratory, was 16,100 per mm³. On succeeding days the infection followed a descending course to a minimum concentration of 140 per mm³ on day 11, when the animal died (Table I). Parasite morphology was typical of *P. brasilianum*, and the asexual stages exhibited a 72-hr cycle in the peripheral blood. The gametocytes appeared normal. Infections were produced upon subinoculation into two other unaltered marmosets and a splenectomized black spider monkey, *Ateles fusciceps*.

The susceptibility of *S. geoffroyi* to experimentally induced *P. brasilianum* was demonstrated by Taliaferro and Taliaferro (1934, Am. J. Hyg. 20: 1-49). The present findings may implicate this primate in the natural transmission cycle of the disease.

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David C. Baerg, Gorgas Memorial Laboratory, P. O. Box 6991, Panama S, Rep. de P.