Non-human primates are valuable models for biomedical research because of their similarities to human anatomy, immunology and physiology. Leishmaniasis, a disease caused by protozoan parasites, has a worldwide distribution and results in high morbidity and mortality. Availability of a non-human primate model of leishmaniasis would facilitate the study of different aspects of this disease and would accelerate the development of vaccines and new drugs. In this article, some interesting features of the vervet monkey (African Green monkey) model of human cutaneous and visceral leishmaniasis are discussed.