Histological study of the lesions from seven naturally occurring cases of Uasin Gishu skin disease showed changes similar to those described originally in 1934 for this disease, and later for the lesions caused by vaccinia virus. The principal microscopial changes were swelling of the stratum spinosum of the epidermis and to a less extent of the hair follicles. The swelling was due to intracytoplasmic inclusions which were dark and compact in the deeper layers, while in the more superficial layers they had a reticulated, foamy or granular appearance. The changes in the infected tissues were sufficiently consistent to be considered of diagnostic value.