

ABSTRACT

Reproduction is a notoriously costly phase of life, exposing individuals to injury, infectious disease, and energetic tradeoffs. The strength of these costs should be influenced by life history strategies, and in long-lived species, females may be selected to mitigate costs of reproduction because life span is such an important component of their reproductive success. Here we report evidence for two costs of reproduction that may influence survival in wild female baboons-injury risk and delayed wound healing. Based on 29 years of observations in the Amboseli ecosystem, Kenya, we found that wild female baboons experienced the highest risk of injury on days when they were most likely to be ovulating. In addition, lactating females healed from wounds more slowly than pregnant or cycling females, indicating a possible tradeoff between lactation and immune function. We also found variation in injury risk and wound healing with dominance rank and age: older and low-status females were more likely to be injured than younger or high-status females, and older females exhibited slower healing than younger females. Our results support the idea that wild non-human primates experience energetic and immune costs of reproduction, and they help illuminate life history tradeoffs in long-lived species