The influence of lifestyle (smoking and body mass index) on wound healing and long-term recurrence rate in 534 primary pilonidal sinus patients.

With pilonidal sinus disease (PSD) incidence increasing, lifestyle issues have been suspected to be responsible to worsen the results of PSD surgery at the same time. The influence of smoking and body mass index (BMI) on long-term recurrence rate in primary PSD surgery has not been investigated yet. A total of 534 patients (German military cohort) were analyzed, comparing the wound healing rates of non-smoker with smoker, as well as recurrence rates in either groups. Simultaneously, the impact of BMI on wound healing and recurrence was studied. Recurrence rate was determined by Kaplan-Meier calculation following up to 20 years after primary PSD surgery. Using primary open surgery, smokers’ and non-smokers’ recurrence rates did not differ statistically \( (p = 0.83; \text{log rank}) \). Comparable rates occurred following the primary midline closure technique \( (p = 0.14; \text{log rank}) \). A BMI of 25 and higher was not associated with adverse wound healing neither in the primary midline closure \( (p = 0.14) \) nor in the primary open treatment group \( (p = 0.3) \); nevertheless, a trend may be seen that a BMI of 25 and above could assist a favorable wound healing rate. The lifestyle parameter smoking and body weight statistically do not complicate wound healing or long-term recurrence rates for the first 20 years following primary PSD surgery in this study. As the BMI of 25
and above may have a beneficial influence on wound healing in primary open and primary midline closure, this observation has to be investigated for the today's surgical procedures of elective first choice-asymmetrical and flap procedures.