In their study of South African women’s intravaginal practices and risk of human immunodeficiency virus (HIV) infection, Myer et al. (1) found a significant association between intravaginal practices and HIV serostatus at baseline but not during follow-up. Their results contrast with those from our prospective study of the effect of vaginal washing on HIV acquisition among women in Mombasa, Kenya (2). Compared with women who did not perform vaginal washing, we found an increased risk of HIV acquisition among women who used water (adjusted hazard ratio (HR) = 2.64, 95 percent confidence interval (CI): 1.00, 6.79) or soap (adjusted HR = 3.84, 95 percent CI: 1.51, 9.77) to clean inside the vagina (2). These findings were significant after adjustment for multiple potentially confounding factors.

There were important differences between these two studies. Our study included Kenyan women aged 18–45 years (median age, 24 years; interquartile range, 21–29) (2), while the South African study included women who were significantly older (aged 35–65 years; median age, 42 years; interquartile range, 38–48) (1). Aging and menopause are likely to influence intravaginal practices, sexual risk behavior, and biologic susceptibility to HIV. In addition, the Kenyan cohort consisted of female sex workers, who were at substantially higher HIV risk than the community-based cohort in South Africa (HIV incidence: 7.7 per 100 person-years vs. 1.8 per 100 person-years). Finally, the longer visit interval in South Africa (6 months) as compared with Kenya (1 month) could have decreased the precision of estimates of the timing of exposure (particularly for potentially confounding variables) and HIV acquisition in the South African study, which might have biased those results toward a finding of no association between vaginal washing and HIV acquisition.

We noted one interesting parallel between the results of these two studies. An increased risk of HIV acquisition was observed in the subgroup of South African women who reported using their fingers to wash inside the vagina, with or without water (HR = 3.7, 95 percent CI: 1.8, 7.4) (1). The use of fingers to clean inside the vagina was reported by 79 percent of the Kenyan cohort (2), raising the question of whether some aspect of this practice may be more risky than others.

Myer et al. noted, correctly, that there have been few prospective studies of the effect of intravaginal practices on HIV acquisition (1). The divergent results from these two studies highlight the importance of additional research.
exploring vaginal health as an HIV prevention strategy. Given regional variations in the nature, frequency, and timing of intravaginal practices, a greater appreciation of the mechanisms by which such practices could increase the risk of HIV infection is needed in order to understand the reasons for these seemingly contradictory findings (3). To this end, we recently demonstrated lower rates of vaginal Lactobacillus colonization in women who reported vaginal washing (4); this suggests one mechanism by which this practice might increase HIV susceptibility (5).

Investigators conducting studies in dissimilar populations with different intravaginal practices may arrive at different conclusions about the risk of HIV acquisition associated with such practices. Gaining a better understanding of the reasons why women engage in intravaginal practices, the mechanisms by which these practices might increase HIV susceptibility, and the degree to which these practices can be modified through behavioral interventions will be essential to the development of vaginal health interventions for reducing HIV risk.

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REFERENCES


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