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# Incidence and risk of vaginal candidiasis associated with SGLT2 inhibitors in real-world practice for women with type 2 diabetes

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### Abstract

#### Aims/Introduction

The prevalence and risk of vaginal candidiasis before and after initiating sodium -glucose cotransporter 2 (SGLT2) inhibitors, though some clinical trials were performed, have not been adequately revealed in real-world practice. We investigated the incidence of vaginal Candida colonization and symptomatic vaginitis and the clinical risk factors including diabetic microvascular complications.

### Materials and Methods

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Subjects were 114 women with type 2 diabetes who were free of vaginitis Wiley Online ptoms and started SGLT2 inhibitors. Vaginal candidiasis tests through self Library administered swabs were performed at baseline, 6-months, and 12-months.

### Results

Before starting SGLT2 inhibitors, 17 (14.9%) had positive vaginal Candida colonization. Younger age and presence of microangiopathy were significantly associated with the positive colonization in multivariate analysis. Among all subjects, 23 (20.2%, 8 by vaginitis and 15 by other reasons) discontinued SGLT2 inhibitors before reaching 6-months test. Of 65 subjects who were negative for Candida at baseline and received 6-months test, 24 (36.9%) converted to a positive culture, and multivariate analysis indicated older age as an independent risk for developing the Candida colonization. There were 18 (15.8%) subjects who developed symptomatic vaginitis, and they showed the similar characteristics to the 24 subjects. Most of those with negative cultures at 6-months exhibited negative at 12-months and vice versa.

## Conclusions

The rates of developing positive colonization and symptomatic vaginitis after starting SGLT2 inhibitors appear to be higher in real-world practice than the rates of 31% and 5-10% in clinical trials, respectively. Risk factors of vaginal Candida colonization may be different before and after taking SGLT2 inhibitors.

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