

Diagnosing Vaginal Discharge Syndrome and Its Potential Impact On Clinical Practice at a Regional Hospital In Taiwan

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Background

- Women presenting with vaginal discharge syndrome are frequently encountered in clinical practice and usually managed empirically.
- We aimed to investigate the prevalence of bacterial vaginosis (BV), vulvovaginal candidiasis (VVC), and trichomoniasis (TV) among adult women of reproductive age and to evaluate the appropriateness of empirical treatment.

Methods

- Non-pregnant women between the age of 20 and 49 years who presented with vaginal discharge syndrome were prospectively enrolled at a regional teaching hospital since Oct 2018.
- Vaginal swabs were collected for determination of Nugent score, cultures for *Trichomonas vaginalis* and *Candida* species, and multiplex polymerase-chain reaction (PCR) assays for BV, VVC, and TV.
- Demographics, symptoms, physical findings, and the empirical treatment administered were recorded.

Conclusion: Empirical treatment for vaginal discharge syndrome is frequently suboptimal. Better diagnostic assays are needed to improve clinical patient care.

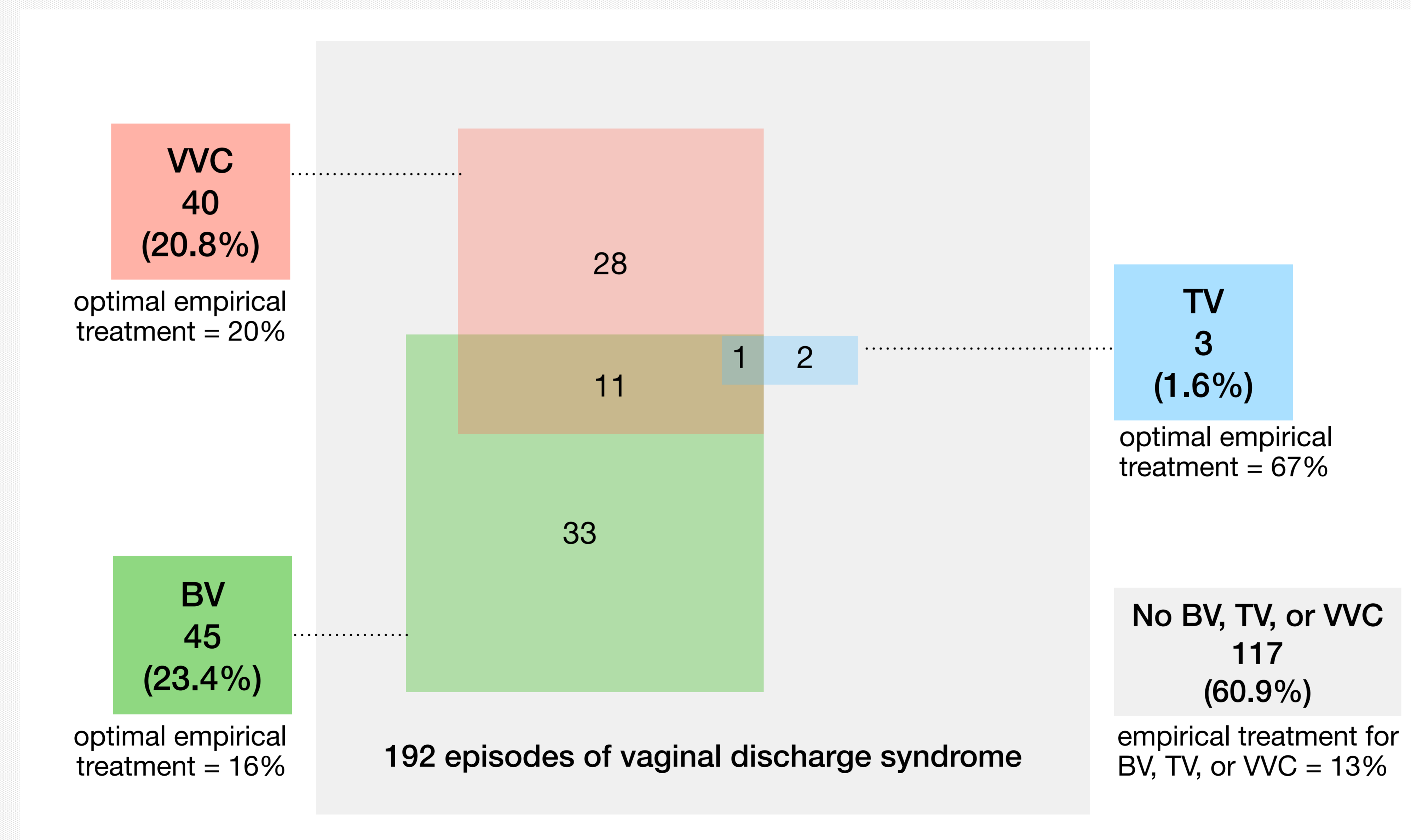


Figure. Laboratory confirmed bacterial vaginosis (BV), trichomoniasis (TV), and vulvovaginal candidiasis (VVC) and the empirical treatment among 190 women with vaginal discharge syndrome.

Results

- From Oct 2018 to Aug 2020, 190 women with 192 episodes of vaginal discharge syndrome were included. Their median age was 37 years and 23% (44/190) were single.
- The prevalence of laboratory-confirmed BV, VVC, and TV were 23.4% (45/192), 20.8% (40/192), and 1.6% (3/192), respectively. Eleven (5.7%) had concurrent BV and VVC and one had triple infection with BV, VVC and TV. (**Figure 1**)
- Empirical metronidazole was prescribed in 19% (9/48) episodes of BV and TV and empirical antifungal therapy (either topical or systemic) was prescribed in 20% (8/40) episodes of VVC. Fifteen (13%) episodes were treated with unnecessary metronidazole or antifungal agents.
- Multiplex PCR assay had diagnostic accuracy of 84.9%, 96.9%, and 100% as compared to the composite gold standard for BV, VVC, and TV, respectively.

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