RESULTS OF THE pH TEST ON THE WOMEN'S VAGINAL DISCHARGE SWABS AND POSSIBILITY AS AN INDICATOR OF HUMAN BODY SECRETIONS

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Recently, similar rape incidents have become social problems and a law on similar rape ones has been newly established, they are considered to be as heavy ones as rape crimes. Unlike rape incidents where the presence or absence of a male's semen is important evidence, women's vaginal discharge can also be important circumstantial evidences of similar rape.

It is important to identify women's vaginal discharge. Therefore, it is necessary to perform cross-validation by using different methods, such as preliminary testing, from the current methylation-based methods. In this study, we focused on the fact that the vaginal discharge in vivo of healthy women is strongly acidic unlike other body secretions such as mainly examined blood, semen, and saliva. We examined pH test for vaginal discharge swabs with semen negative responses among actual criminal evidences. And the possibility of whether the pH test could be considered as an indicator for the vaginal discharge was examined. As a result, the pH value of the swabs of the women's vaginal discharge was average pH 5.5, but the pH was not within the range of theoretically healthy women's vaginal discharge in vivo pH 3.8 ~ pH 4.5. There were also many variables depending on the age of the victim and the menstrual cycle. However, there is a possibility that pH test is a preliminary test for vaginal discharge. Because a considerable number of samples show acidity and the pH test can be applied quickly without affecting subsequent tests at the initial stage of the test. This suggests that it can be helpful as circumstantial evidences of the sexual crimes by suggesting additional clues about the vaginal discharge identification.