

PSA-test as a tool for informing victims about possible sexual assault in sexual assault centres in Estonia

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Background

15% of patients in Estonian sexual assault centres' (SAC) patients (n=755) in 2016–2023 suspected being drugged and sexually assaulted and 31% could not clearly remember the sexual assault. These survivors look for an answer to the question – what really happened to them and who might be the perpetrator? In SAC we gather forensic evidence and store it in the health care institution until handing it over to the police if the survivor decides to make a statement to the police. Thus, the results of the forensic evidence are revealed for the victims weeks and months later and only if the survivor decides to go to the police.

The aim of this study

We looked for a tool that would give quick results during medico-legal examination in a clinical setting of SAC and enable to tell the survivor if there is possible male tissue (semen) in the vagina.

Methods

We piloted microscopy, SERATEC PSA Semiquant test and polymerase chain reaction for the detection of Y-chromosome sequences in vaginal fluid.

Results and discussion

The results of the piloting will be presented. We chose SERATEC PSA Semiquant CS which is a chromatographic immunoassay for the rapid semiquantitative detection of PSA in forensic crime samples. From 2019 onwards, the PSA-test has been applied for 32% of patients (n=993) who did not remember what had happened, but suspected penetrative vaginal sexual violence, and no more than 47 hours had passed since the assault. The results were positive in 40% of the tested cases.

Conclusions: We suggest that PSA rapid test can be used in SAC setting to provide more information to sexual violence survivors who do not remember the assault.