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Review

Evaluation of Sexually Transmitted Diseases in Cases of Sexual Assault and Abuse

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Abstract: It is important to be evaluated cases of sexual assault and sexual abuse in terms of sexually transmitted diseases along with physical and psychological trauma. In these cases, the examination is usually limited to the detection of trauma findings and the taking of samples for the identification of the assailant. There are a large number of sexually transmitted diseases such as *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, *Trichomonas vaginalis*, Hepatitis B virus, Human immunodeficiency virus and syphilis; nevertheless, there are no standardized guidelines for screening tests and prophylaxis practices for these agents in our country. Therefore, the risk of transmission should be taken into consideration in all cases and assessment should be made in terms of treatment and prophylaxis practices if necessary. Also, in cases that the assailants can be determined, these people's tests and examinations should be performed for both determination of the victim's need for medical care for sexually transmitted diseases and the assailants' trial process and also establishing the casual relation. In this review, it was aimed to draw attention to the evaluation of sexually transmitted diseases which can be seen in victims of sexual assault and sexual abuse and also the examination of the assailants in the light of the literature by the view of medico-legal aspect.

Keywords: Forensic Medicine; Sexual Assault; Sexual Abuse; Sexually Transmitted Diseases.

Öz Cinsel saldırı ve cinsel istismar olgularının fiziksel ve ruhsal travma ile birlikte cinsel yolla bulaşan hastalıklar (CYBH) açısından da değerlendirilmesi önemlidir. Bu olgularda muayene genellikle travma bulgularının tespiti ve saldırganın kimliğinin tespitine yönelik örnek alımı ile sınırlı olmaktadır. Cinsel yolla bulaşan *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, *Trichomonas vaginalis*, Hepatit B virüsü, Human immunodeficiency virüs ve sifiliz gibi çok sayıda etken mevcut olmakla birlikte ülkemizde bu etkenlere yönelik tarama testleri ve profilaksi uygulamaları ile ilgili standardize edilmiş bir rehber bulunmamaktadır. Bu nedenle, tüm olgularda bulaş riski göz önünde bulundurulmalı, gereklilik halinde tedavi ve profilaksi uygulamaları açısından değerlendirme yapılmalıdır. Ayrıca saldırgana ulaşılabilirdi durumlarda gerek mağdurun CYBH için tıbbi bakım ihtiyacının belirlenebilmesi gerekse saldırganın yargılanma süreci ve illiyet bağının kurulabilmesi için bu kişilerin de muayenesi ve tetkikleri yapılmalıdır. Bu derlemede, cinsel saldırı ve cinsel istismar mağdurlarında görülebilecek cinsel yolla bulaşan hastalıkların değerlendirilmesi ve saldırganın muayenesi hususlarının, literatür bilgileri eşliğinde, adli-tıbbi yönden incelenerek sağlık çalışanlarının bu konuya dikkatlerini çekmek amaçlandı.

Anahtar kelimeler: Adli Tıp; Cinsel Saldırı; Cinsel İstismar; Cinsel Yolla Bulaşan Hastalıklar

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1. Introduction and Purpose

Sexual assaults and abuses are important judicial incidents that have serious physical and mental adverse effects on victims. In the United States, it is estimated that approximately 19.3% of women and 1.7% of men suffer sexual assault, which occurs by penetration (1). The recognition, medical treatment and management of these cases is a complex process with forensic, medical, psychological and social aspects (2). In this process, many issues from various aspects should be considered carefully such as evaluation and treatment of physical injury; contraception; evaluation, treatment and prevention of sexually transmitted diseases (STDs); specimen collection and giving psychological support (3,4). Therefore, it is important that the examinations of victims should be carried out by experienced physicians and as a whole to cover all processes.

In our country, examinations of victims of sexual assault and abuse can be carried out by obstetricians and gynecologists, emergency medicine specialists and general practitioners besides forensic medicine specialists. In accordance with “Law of Criminal Procedure” and “Regulation on Physical Examination, Genetic Examination and Physical Identification in Criminal Procedure”, the examinations related to sexual assaults, which are organized with special provisions as internal body examination, can be mostly focused on genital examination-hymen and anal region due to the characteristics of the case- and consequently, focus could be on the determination of trauma findings and collection of specimen for forensic purposes. Evaluation according to STDs which is involved in preventative and therapeutic medicine services is one of the most important tasks of the physician who does medico-legal examination. However, STDs evaluation generally falls behind the trauma care and treatment and it can be ignored. In a survey study of adolescent sexual abuse in our country, it has been reported that physicians responded correctly to questions about STDs risk factors 93.6%, questions related to STDs agents 74%, and questions about prophylactic treatment and vaccine practices 58%. Scientific data also support the need to increasing of health care workers’ knowledge about STDs (5).

There are many causes of sexually transmitted diseases such as *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, *Treponema pallidum*, *Trichomonas vaginalis*, Human immunodeficiency virus 1/2 (HIV-1/2), Herpes simplex virus (HSV), Human papilloma virus (HPV), Hepatitis B virus (HBV), *Mycoplasma genitalium*, *Haemophilus ducreyi* (chancroid), and *Phthirus pubis* which causes pediculosis pubis (3). Appropriate management of the process for diagnosis, treatment and prevention of

diseases and complications caused by these pathogens are important as at least the detection of trauma findings, collection of samples and treatment of physical trauma findings, while these pathogens which sometimes caused irreversible damages in the health of the victim.

In this review, it was aimed to draw the attention of health workers by providing knowledge about STDs and the evaluation of these diseases that can be seen in victims of sexual assault and sexual abuse. In the article, the term of “sexual assault” shall be used to refer to non-consensual sexual acts performed against adults and the term of “sexual abuse” shall be used to refer to sexual acts performed against children in accordance with the legislation of our country. Since STDs can show different qualifications in adults and children, the subheadings created will be dealt with primarily from the point of view of adults and children. Due to the fact that it then contains a separate regulation in the legal legislation, examination of the defendant and suspect will be mentioned separately. Suggestions will also be given on the important points such as in the forensic examinations and evaluations performed about sexual assaults and abuses, prevention of possible transmission and establishment of a casual relation with sexual assault and abuse in case of transmission.

A. Sexually Transmitted Diseases in Adults

A.1. Prevalence:

The rate of transmission of STDs after sexual assaults varies considerably between populations (6). Overall prevalence is reported between 4% and 56%, and the wide range in prevalence may be due to factors such as differences in patient groups, the ages and sex of the victims included in the study and the differences in diagnostic testing procedures (7, 8). Positive culture results depending on methodological methods may also indicate preexisting infection (6). In a research conducted, in three months before the assault, the positive infection results in those who do not have sexual intercourse and those who have recently had intercourse, was reported as 4.3% and 25.6%, respectively, (9), while in another study, the rate of STDs was reported as 26.6% in virgins and 34.2% in non-virgins and there was no significant difference (10).

Jauréguy et al. were reported as the rates of genital chlamydia 13.8%, gonorrhea 3.6%, and coinfection of chlamydia and gonorrhea % 1.6 in females after sexual assault, and also these were detected in males as the rates of anorectal chlamydia 4.8%, gonorrhea 4.8%, and oropharyngeal gonorrhea 14.3% (8). In another study, the chlamydia infection rate was reported as 28.8% and

gonorrhea infection rate as 6.2% in female victims (10). For trichomonas infection, positivity rates were detected as 2.1% and 11.2% in different studies (11, 12).

Although there is not enough data available in the literature on the risk of transmission of Hepatitis B, HIV and genital herpes after sexual assault, van Rooijen et al. reported that the rate of newly diagnosed HIV infection in females admitted after the attack was 0.2%, the rate of HBV infection (HBsAg positivity) 0.6%, the rate of syphilis 0.1%, and in males for HIV, HBV and syphilis were reported as 1.6%, 1%, 3% respectively (6, 13). In another study, it was found that 2.6% of victims had Hepatitis B and HPV and 1.3% had syphilis during their six-month follow-up (11).

A.2. Factors That Increase the Risk of Transmission:

The risk of STDs is associated with the nature of the attack, and penetrating attacks often result in genital traumas, which increase the risk of transmission of infections (14). The seroprevalence of infection in population is also important in terms of risk. According to the some studies in our country, gonorrhea infection was reported as 8.6%, chlamydia infection 9.3% and trichomonas infection 2.8% in male patients with urethritis (15, 16).

For HIV, the type of contact is indicated as a factor that increases or decreases the risk of transmission. Accordingly, sexual intercourse with the consent of either side, the risk of transmission of HIV is reported as 10 for the females in penile-vaginal intercourse for every 10.000 encounters with the infected source; and 50 for the recipient in anal intercourse; and 1 for the recipient in oral intercourse (17). As for that, in sexual assaults, in cases of penetration, bleeding accompanying trauma, viral load in ejaculate, presence of STDs/genital lesions in the victim or assailant may increase the risk of HIV transmission (3).

Most STDs are included in mandatory notifiable diseases in our country (18). Therefore, it is clear that regular reporting and effective surveillance will contribute to the assessment of possible post-attack transmission risk.

A.3. Screening of Pathogens and Diagnostic Tests:

There is no standard recommendation for screening of STDs in the victims of sexual assault. In Australian STI Management Guidelines, it is recommended to be performed initial and control tests for all adult victims for HIV, HBV, syphilis, gonorrhea, chlamydia, trichomonas except HSV and HPV infections which do not have clinical findings (19). In Centers for Disease Control and Prevention (CDC) guidelines for Sexually Transmitted

Diseases for 2015, it was taken as a basis that decision about performing tests evaluated on a case-by-case basis. (3). The HCV test is not included in the recommended tests for victims in this guide. It is represented that this is due to the low risk of transmission and lack of prophylaxis protocols (20). However, testing for HCV is also recommended in the CDC's updated guidelines for non-occupational HIV post-exposure prophylaxis and in our country's HIV/AIDS guidance (21, 22).

Tests that could be included in the initial evaluation recommended by the CDC:

- For the examples taken from body regions that penetration or attempted penetration occurred; Nucleic Acid Amplification Tests (NAAT) for chlamydia and gonorrhea,
- For vaginal or urine samples; NAAT for *T.vaginalis*
- For the presence of especially the complaints of vaginal discharge, odor or itching; pH test and direct fresh examinations including KOH tests for bacterial vaginosis and candidiasis,
- For HIV, HBV and syphilis; blood samples may be taken, if the first test results do not detect infection, serological tests may be repeated at the fourth-sixth week and third month for syphilis, at the sixth week and the third and sixth months for HIV (3).

Detection of the infection agent in the sample taken within the first 72 hours may indicate a previously acquired infection or infected semen (23), as well as the possibility that very early tests may not be able to detect the infection. Therefore, many centers where sexual assault cases are evaluated do not routinely recommend screening tests at first examination (24). Taking the necessary samples for the test is especially important in people who initially refuse to receive treatment and want to receive appropriate treatment for pathogens (20). Besides, the negative results detected in the samples taken after the recent attack may be valuable in terms of establishing a basal value in follow-up (23). In addition to diagnosis and treatment, the tests to detect the pathogens also contribute to the psychological management of the victim, the management of the voluntary sexual partner and the reporting of the diseases (24).

A.4. Prophylaxis:

Whether or not to give prophylaxis for infections after sexual assaults is a frequently debated topic. The decision depends on the local prevalence of sexually transmitted infections, the likelihood that the victim will continue to have control, the type of attack, the risk factors of the

assailant, the occurrence of genital injury and the decision of the victim (25). In the studies, the arrival of victims for control examination within 1-2 weeks, is ranged from 53.2-62% (26, 27). Empirical treatment is usually recommended for reasons such as low concordance, undetectable infection agent in the initial evaluation after the attack and need to take samples from all regions in the control examination unless the victims refuse (4).

Antimicrobial treatment for gonorrhea, chlamydia and *T.vaginalis* is stated that it should contain 250 mg ceftriaxone, 1 g azithromycin and 2 g metronidazole/tinidazole (3, 21).

Prophylaxis of viral pathogens in sexual assaults should also be considered. The recommendations for prophylaxis by viral pathogens are as follows:

Prophylaxis for Hepatitis B Infection: It changes according to the victim's immune system condition (3, 20):

- Previously infected by HBV/existence of documentation about immunity to the disease; prophylaxis is not required.
- In cases that vaccination has been performed but the immune response has not been evaluated; a single dose of hepatitis B vaccination is recommended.
- In cases of uncertainty about the completion of the vaccination chart, the persons should be evaluated as unvaccinated.
- If the assailant is either known to be HBV-positive or the presence of infection is unknown and if the victim is not infected/unvaccinated/the history of vaccination is unknown; Hepatitis B immunoglobulin with the vaccine should be recommended, however according to the CDC guidelines, if the assailant's HBsAg status is not known, only the vaccine should be given to non-vaccinated victims.

Prophylaxis for HIV Infection: The number of HIV infections detected in male and female sexual assault victims is minimal (21). There are different practices for post-exposure prophylaxis (PEP) and in the studies, initiation rate of the PEP varies between 18%-76% (28-30). The factors affecting PEP suggestions are the likelihood of the assailant being infected with HIV, the presence of contact characteristics that may increase the risk of transmission, the duration after the event, the benefit/risk assessment of the PEP (31).

- If it is known that the source is HIV-positive and in the situations that exposure of vagina, rectum, eye, mouth, or other mucous membrane, nonintact skin with blood, semen or any body fluid that is contaminated by blood, and applications to the hospitals within the first 72 hours; antiretroviral prophylaxis per 28 days is recommended.

- For the applications after 72 hours; individual evaluation is recommended.
- HIV antibody tests are recommended to be examined in the sixth week, third and sixth months after contact (17).

During the initial examination, since the determination of the status of HIV infection of the assailant is usually not possible, health care workers should consider local HIV/AIDS epidemiology, having vaginal/anal penetration or not, having ejaculate contact with mucous membranes or not, the presence of mucosal lesion in assailant or victim, the number of assailants and their characteristics (such as IV drug use) and they also should take into consideration of any situation that may increase the risk of transmission (3). Expert's opinion on the subject should be taken for PEP. In addition, necessary arrangements must be made for the easy supply of antiretroviral drugs.

Prophylaxis for HPV Infection: HPV vaccination is also recommended for victims of sexual assault. In practice, the age ranges recommended by the Advisory Committee on Immunization Practices (ACIP) should be considered. Routine vaccination schema should start at the ages of 11-12 for females and males, but it can be also started at the age of 9. For those who have not previously been vaccinated properly, females at 13-26 ages and males at 13-21 ages can be vaccinate and homosexual, bisexual and men with immunodeficiency can be vaccinate until the age of 26. Two doses are recommended for those who start to be vaccinated between the ages of 9-14 and three doses for those who start to be vaccinated between the ages of 15-26 (32).

B. Sexually Transmitted Diseases in Children

B.1. Prevalence:

The prevalence of sexual abuse in children varies depending on country, sex, and methodological factors of the studies.

In a systematic review study evaluating the prevalence of sexual abuse; four different types of sexual abuse have been identified and it has been stated that for girls, general prevalence was observed 8-31% and prevalence for the acts of sexual abuse by penetration was 9%; and for boys, general prevalence was observed 3-17% and the prevalence for the acts of sexual abuse was 3% (33). A questionnaire study performed among high school students by Hébert et al.; it was reported that 14.9% of girls and 3.9% of boys were sexually abused, also 5.3% of girls and 1.4% of boys were forced to have sexual intercourse

by penetration (34). In another study, it was reported that the prevalence of sexually transmitted diseases in children after sexual abuse ranged between 5-8% (35). In Girardet and et al.'s study about sexually abused children aged between 0-13, it was reported that at least one STDs pathogen was detected in 485 girls by the rate of 8.2% and no pathogen was detected in 51 boys. Also, in this study, rates were determined for the infections of gonorrhea 3.3%, chlamydia 3.1%, *T.vaginalis* 5.9%, syphilis 0.3% and HIV 0% (36).

The prevalence of STDs was low in prepubertal girls examined for possible sexual abuse (37), and in a study, chlamydia infection was 6.7%, gonorrhea infection was 1.8% (38), while in another study which evaluated trichomonas infection, the rate was 4% (39).

B.2. Examination in Terms of Suspicion of Sexual Abuse:

The detection of STDs in prepubertal children also raises questions about the path of transmission. STDs seen in infants and in early childhood, can be transmitted by vertical transition which can lead to long periods of colonization, through autoinoculation of infections present elsewhere in the body or through heteroinoculation among children (40) and also it may be the evidence of sexual abuse (41). Therefore, the detection of any STDs in children should be a warning to health workers about the possibility of sexual abuse. At this stage, it is important to evaluate the case especially with forensic medicine specialists in a multidisciplinary approach, and to make essential notifications.

The detection of STDs in children after the neonatal period strongly supports sexual abuse, but there are some exceptions of this condition. In the STDs guide of CDC's: gonorrhea, syphilis, and HIV infections which are not transfusion-associated/acquired in perinatal period are pointed out indicators of sexual abuse. In the same guide, it is emphasized that chlamydia infection may be an indicator for sexual abuse in children older than three years and children younger than 3 years of age who are not considered a perinatal acquired infection which can persist for two to three years. If genital warts, *T. vaginalis* or genital herpes are diagnosed, it is stated that abuse should be suspected again (3). In the Adams criteria updated in 2018, genital, rectal or pharyngeal *N. gonorrhea* which is determined by the appropriate test method, excluded perinatal transition, genital or rectal *Chlamydia trachomatis* infections, *T. vaginalis* infections, syphilis, and HIV which transmission by blood/contaminated needles is excluded, are all indicators of sexual contact (37).

It is a common aspect that the main transmission path of HPV, which is the cause of anogenital warts, is vertical

and auto-heteroinoculation (42). In a study that HPV was researched by NAAT in prepubertal girls and sexually active and inactive adolescents, the positivity rates detected in vaginal samples were 34.5%, 47.4% and 28.6%, respectively; and also it was emphasized that it should be taken care only if sexual abuse is suspected based on the positive test result due to the prevalence of HPV infection prior to sexual contact (43). On the other hand, in another study, it was shown that HPV was detected in 13.7% of sexually abused cases and 1.3% in children who had not been sexually abused; moreover, as the certainty of abuse increases, the rate of detection increases, too. Increased HPV detection with advancing age, decreased association with maternal genital warts does not support vertical transmission after two years of age (44).

About genital herpes, it has been more reported as sexual transmission when HSV type 2 was isolated and in the presence of only genital lesions at children over the age of five. In the presence of both genital and oral lesions, young children may be infected by infected adults during maintenance such as diapering or autoinoculation (45). In Adams criteria, *Molluscum contagiosum*, condyloma acuminatum (HPV) and HSV type 1/2 infections can occur with other modes of transmissions as well as sexual transmission. In the examination of these infections, additional information may be needed, such as the mother's gynecological history (HPV), the child's oral lesions (HSV) or the presence of lesions in other areas of the body (molluscum).

Genital ulcers caused by viral pathogens such as Epstein-Barr virus and vaginitis caused by fungal pathogens such as *C. albicans* or bacterial pathogens are infections that unrelated to sexual contact (37).

B.3. Pathogen Screening and Diagnostic Tests:

If the child is asymptomatic, it is not routinely recommended to take samples and test for all pathogens from all regions due to not be prevalent of STDs in children examined for sexual abuse. Each case should be evaluated individually for the risk of STDs. In the following cases, clinicians should take in consideration screening (3, 46):

- Oral-anal-vaginal penetration or findings of recent/healed penetration,
- Abuse by a foreign person,
- Abuse by one who is known to have STDs or is at high risk for STDs (such as having IV drug addict and multiple sex partners),
- Having a sibling, relative or household member with STDs,

- Living in an area with a high rate of STDs in the community,
- The child has symptoms or signs of STDs (vaginal discharge, genital ulcers, urinary symptoms, etc.),
- A child who has previously been diagnosed with STDs should be screened for other STDs pathogens,
- The child or his family wants to be tested for STDs.

Because of the psychosocial and legal consequences of false positive results, high-specificity tests should be used in diagnosis. If the test is planned in children, it is the first proposed microbiological culture method (3). However, due to the low sensitivity of culture-based tests, the fact that many laboratories no longer recommend these tests, and especially the difficulties in accessing the culture method for *C.trachomatis*, the use of molecular tests has become widespread in recent years. Concerns about NAAT in children are being cross-reactivity in *N.gonorrhoeae* and having insufficient data for the usage in extragenital (pharynx and rectum) samples (24).

At the CDC STDs guide, it is stated for girls that NAAT may be used in vaginal and urine samples as an alternative to culture method for the detection of *N.gonorrhoeae* and *C.trachomatis* and additional tests can be performed in all positive detected samples. It is also stated for boys and extragenital samples that culture method is still preferred for testing (3). In many centers where the sexual abuse cases examined, urine samples are taken to be studied with NAAT for chlamydia and gonorrhea due to the convenience of its provision (24, 37).

The American Academy of Pediatrics have proposed NAAT for the detection of these agents due to its high sensitivity and close to cultural specificity. In addition, recent studies have reported that NAAT may be used in extra genital samples following sexual abuse (47, 48).

Data on the use of molecular methods for *T.vaginalis* are insufficient. So, direct fresh examination and culture method are recommended for vaginal discharged and asymptomatic children, and direct fresh examination are recommended for bacterial vaginitis (3, 24). The control examination should be conducted approximately two weeks after the last contact, taking into account the incubation periods of possible pathogens if the initial examination was not performed or the pathogen was not detected (3,49).

Although there is not enough data on the risk of HIV transmission after sexual abuse in children, girls may be under risk more than adults because of their vaginal epithelium is thin, there is more cervical ectopia in children, also children may be more exposed to recurrent sexual abuse than adults. Therefore, HIV screening testing in

children should be considered and an antiretroviral prophylaxis decision should be made considering the type of attack and the likelihood of infection of the attacker (3, 50). Considering that the HBV vaccine entered the childhood vaccine calendar in 1988, in our country; evaluation should be performed according to the Hepatitis B vaccine. If syphilis, HBV and HIV basal serological tests are detected negative, control examination after 6 weeks and 3 months is recommended for the development of antibodies (3).

B.4. Prophylaxis:

Antimicrobial treatment is not recommended for such reasons that the incidence of STDs after sexual abuse in children is low, prepubertal girls have a lower risk for ascending infection than adults and regular follow-up of children can be provided. However, empirical treatment can be started after samples are taken because some children or their families are concerned about the possibility of infection (3). In addition, HPV vaccination is recommended for unvaccinated children aged 9 and over who have not been vaccinated or whose vaccination scheme has not been completed in accordance with ACIP recommendations (24).

C. Collection of Biological Materials from Clothes and from Skin:

In sexual abuses and sexual assaults, there is a possibility that biological evidence of the assailant may be found on the skin and clothing of the victim. Especially semen and blood within these, play an important role in the transmission of pathogens of STDs. The resistance of microorganisms to environmental conditions is variable and while *Chlamydia*s are not susceptible to the external environment, *N. gonorrhoeae* and HIV are highly unstable (51). In cases who the infection agent cannot be isolated and identified by immunologically, DNA, RNA or proteins can be detected by molecular methods and microorganisms can be identified. It can also be studied on chemically fixed samples or extracts, and by these methods, the interrelated origins of pathogens can be distinguished based on their differences in genotypes (52). For these reasons, it should be cooperated with medical microbiologists about studying of tests for pathogens of STDs s from biological materials which found on the victim's skin and clothes except the genital and extragenital organs. In a reported sexual abuse case, the defendant has been sentenced by the way of molecular genotyping of *N.gonorrhoeae* which was detected in the taken samples from the child and from the defendant's underwear who had urethral discharge (53).

D. Points to be Paid Attention during The Examination of the Suspect or Defendant

The examination of the suspect and the defendant after sexual assault or sexual abuse is important as well as the examination of the victim in terms of proving the assault/abuse. The examination of genital region inferred internal body examination must be done by the physicians and the biological samples should be taken by the physicians or health professionals.

During the assailant's examination after sexual assault or abuse, the required examination about STDs should be performed and required tests should be requested. Detection of existing diseases in the assailant is also very important to determine the victim's need for prophylaxis. Besides, medical examinations of suspect or assailant have particular importance to be determined the casual relation of abuse or assault with STDs, when the negative results of the victim before the sexual assault turn to the positive after the assault/abuse. Also, cases have been reported that the identity of assailant was determined by typology of *N. gonorrhoeae* strains with molecular methods (53, 54).

Results

STDs should always be kept in mind in victims of sexual assault and abuse, and if suspect and assailant are known, they should be examined appropriately for these diseases.

Appropriate prophylaxis and follow-up of assault/abuse victims have medico-legal importance to both establishing casual relation with assault/abuse and prevention of STDs. If the assailant attacks to the victim consciously, even he/she predicts that the current disease would transmit to the victim, it should be also evaluated with regards to the crimes of the intentional injury.

There are currently no agreed guidelines for the examination of STDs after sexual assault/abuse in our country. Not carrying out an evaluation for STDs during the examination of the assault/abuse cases should be considered as a medical deficiency. National guidelines and algorithms should be prepared for screening, diagnosis, treatment and prophylaxis of sexually transmitted diseases in cases of sexual assault and abuse, examinations should be carried out at special centers. Accessibility of diagnostic tests and the treatments to be applied should be provided. Until this preparation is made, it is considered to be beneficial to follow recommendations written below:

- In all sexual assault/abuse cases' examinations, the risk of STDs should also be evaluated.
- The assessments should include an appropriate examination, if necessary, consultation with specialists, and the request for the necessary tests.
- Empirical prophylaxis requirements should be evaluated and if necessary should be performed at the risky cases and victims that could not be determined suspect and assailant.
- If the suspect or assailant can be determined, they should be also examined and tested or the judicial authorities should be warned to do so.
- All cases should be followed in terms of STDs and records of the cases should be kept in comprehensively for the evaluations to be made for casual relation in the next process.

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