

## GENITAL, PARAGENITAL AND EXTRAGENITAL INJURIES IN FEMALE SEXUAL VIOLENCE CRIMES IN PRIMARY HEALTH CARE

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***Doménica Paulette Poma Carpio***

Universidad Técnica de Machala

General Doctor

<https://orcid.org/0000-0002-4246-5696>

***Yamilé Katherine Pacheco Serrano***

Universidad Técnica de Machala

General Doctor

<https://orcid.org/0000-0001-8799-0884>

***María del Cisne Solorzano Riofrio***

Universidad Técnica de Machala

General Doctor

<https://orcid.org/0009-0003-5699-4630>

***Dagmar Michelle Suárez Limones***

Universidad Técnica de Machala

General Doctor

<https://orcid.org/0009-0000-7100-0989>

***Helen Domenica Apolo Sigcho***

Universidad Técnica de Machala

General Doctor

<https://orcid.org/0009-0002-3787-824X>

***Ximena Verenisse Quezada Ruiz***

Universidad Técnica de Machala

General Doctor

<https://orcid.org/0000-0002-3565-7438>

***Sayda Valeria Ruilova Núñez***

Universidad Técnica de Machala

General Doctor

<https://orcid.org/0009-0002-6986-5339>

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**Rene Adolfo Salinas Paucar**  
Universidad Técnica de Machala  
General Doctor  
<https://orcid.org/0000-0001-8898-9623>

**Cristian Santiago García Guartizaca**  
Universidad Técnica de Machala  
General Doctor  
<https://orcid.org/0009-0007-7814-4089>

**Eric Jasmani Ontaneda Sanchez**  
Universidad Técnica de Machala  
General Doctor  
<https://orcid.org/0009-0002-6280-9131>

**Melanie Doménica Jordán Torres**  
Universidad Católica de Santiago de  
Guayaquil  
General Doctor  
<https://orcid.org/0000-0003-2389-0862>

**Joyce María Cuenca Rentería**  
Universidad Técnica Particular de Loja  
General Doctor  
<https://orcid.org/0009-0008-7553-0678>

**Abstract: Introduction:** The Comprehensive Organic Penal Code of Ecuador (COIP) defines sexual violence as “the person who, as a manifestation of violence against women, interposes another person and forces them to have sexual relations and other similar practices”; A fatal outcome in a case of violence is death, which, due to resistance to the attack, the victims die from strangulation, trauma or bleeding wounds. **Objective:** Differentiate genital, paragenital and extragenital injuries in crimes of female sexual violence through a systematic review of the literature that contributes to the resolution of legal medical processes. **Methodology:** This is a study carried out in a retrospective descriptive manner through a bibliographic review in the scientific bases of SCIELO, EBSCO, PUBMED, MESH, to extract qualitative information by collecting information on genital injuries in cases of sexual violence. **Results:** In the exhaustive search for evidence-based medicine articles in different digital repositories, around 3584 articles were found, of which 27 articles were collected that constitute extragenital, genital and extragenital injuries in sexual violence; 3 books about medical legal foundations. **Conclusion:** According to the reviewed literature, the role of the doctor is reaffirmed when receiving a patient who is a victim of sexual rape; The professional who captures the patient must perform a physical examination which determines if there are genital injuries in the victim. This procedure is mandatory for medical officials to lead to an investigation. **Keywords:** sexual assaults, sexual violence, sexual crimes.

## INTRODUCTION

The World Health Organization (WHO) defines sexual violence as “an attempt to commit a sexual act, unwanted sexual comments and advances, actions to commercialize or use in any way a person’s sexuality through coercion by another person.”; and reports that of every 4 to 9 people, one of them experiences violent sexual acts and in disabled people, in relation to the world population, 2% of them suffer injuries due to violence. (1)

According to the Comprehensive Organic Penal Code of Ecuador (COIP); defines sexual violence as “the person who, as a manifestation of violence against women, interposes another person and forces them to have sexual relations and other similar practices”; A fatal outcome in a case of violence is death, which, due to resistance to the attack, the victims die from strangulation, trauma or bleeding wounds. (2)

Cases that involve sexual integrity involve the intervention of primary care health professionals, accompanied by police and justice personnel; This group of professionals has a great responsibility to determine the mechanism of the injuries and the factors that intervene depending on the situation. (3) When identifying signs of sexual violence, it is necessary to physically inspect injuries in the genital area in order to corroborate whether the events coincide with what the victim declares for carrying out the legal medical examination. (4)

Injuries in cases of female sexual violence are classified topographically on the human body; They are the genital, paragenital and extragenital area. These areas are strategically distributed in the medical legal field for physical inspection in a sexual crime, these include areas of the external female genital organs, anal region, buttocks, breasts, neck, wrist and ankles. (5)

The world report on violence and health,

published by the Pan American Health Organization, issues information about women who have suffered sexual violence and estimates that of 3 women, one of them has faced a case of sexual crime, corresponding to 35 % and worldwide 30% of victims experience a case of sexual assault by their partner. (6)

In Latin American countries; In the figures published by the International Catalan Institute - Colombia in 2018, 80% of the cases that are registered, only a minimal part reach legal authorities. (7) A study carried out in Venezuela, in 2018, determines that the female gender suffers sexual violence with 82.17%, and 43.74% corresponds to adolescents. (8) In 2020, after an analysis of Peruvian women, results were obtained that 6.3% suffered sexual violence from their partner and that 20% of separated women suffered sexual violence in the last year. (9)

In Ecuador, there is an average of 42 complaints a day, who declared having suffered rape; According to UNICEF data in 2020, 65% correspond to events of sexual abuse and only 15% of them were reported (10); The National Institute of Statistics and Censuses (INEC) reported in 2019, a figure of 32.7% at the national level, 36.6% in the urban sector and 22.9% in rural areas. In the province of El Oro, 59.6% of cases involving acts of violence against women are recorded; and the rate per 100,000 inhabitants is 14.53. (9)

The fact that the numbers of cases of sexual violence are increasingly frequent has allowed me to investigate this issue for a timely resolution in the description of injuries that contribute to justice processes in Ecuador.

Therefore, the objective of my work is to differentiate genital, paragenital and extragenital injuries in crimes of female sexual violence through a systematic review of the literature that contributes to the resolution of medical-legal processes.

## GENERAL APPROACH IN RELATION TO SEXUAL VIOLENCE

The word violence comes from the Latin *violentilla*, which means deliberate behavior that can cause physical or psychological damage to a person. It is also related to aggression, which gives rise to emotional and psychological affectation with threatening attitudes. (10)

Sexual violence has historically been represented continuously in European culture, as this has been pointed out by feminist thinkers that include aggression and sexuality; This is how feminism in the 70s, Michael Foucault refers to the feminist analysis of sexuality, conceptualizes that both heterosexual women and men are exposed to submission and domination. (eleven)

Kate Millett and collaborators associate rape with politics and recognize sexuality as an act of power and also conclude that crimes of violence generated in the sexual act are linked as normal. (12). Segato describes rape as a form of manipulation and control towards women by committing abuse and from history to the present they point to women as defenseless victims. (13)

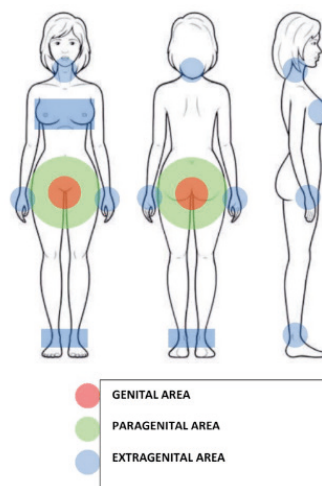
In 2012, Larkin et al., carried out a comparative study with different cohorts of adult women who had sexual relations after rape and another group had consensual sexual relations. Colposcopy method and genital injury severity scale were used. This study reported that Women who had sex as a result of rape had more severe injuries than those who consented to have sex. (14)

In 2019, the magazine *Salud Jalisco*, Dominguez and colb, in a descriptive study with the purpose of establishing the prevalence of violence against women, using mandatory notification records; with 1,140 cases of sexual violence with significant damage of genital injuries, psychological damage, developmental

disorders, restrictions or death; The increase in notification of 67.5% is evident, which is reflected in the strengthening programs and actions that have been carried out in the country to protect women and adolescents. (fifteen)

## DESCRIPTION OF THE TOPOGRAPHIC ANATOMY ASSOCIATED WITH THE INJURIES

For the legal and expert medical study to make a report of a sexual crime, it is necessary to distribute it into 3 topographic areas: the genital, paragenital and extragenital area. The first includes the external genitals, perineal and anal region; The paragenital area also includes the infra-umbilical abdominal area, the inner surface of the roots of both thighs and the gluteal region; and finally the extragenital area that involves the rest of the most relevant topography: the neck, the breasts and both wrists and ankles. (16) (Figure 1)



**Figure 1:** Topographic areas for legal medical examination

Source: own elaboration

In anatomy, it is normal to see the vulva in the genital area of women, which makes up the external genital organs and includes specific structures such as labia majora and

minora, mons venus, clitoris, vestibule, vestibular bulbs, vaginal orifice, urethral orifice, Bartholin's gland or Skene's glands; In a virginal woman the labia majora are thin, thick, elastic and rounded; and also serve as coverage for the vaginal opening. (17)

The labia minora are made of soft, thin, pale pink tissue and are between the labia majora; the mons venus is located in front of the pubic symphysis; The clitoris has been described as a button that is located at the level of the anterior union of the labia majora, anterior to the meatus and vagina; The vaginal vestibule is located between the two labia minora, extending from the anterior part of the clitoris until reaching the fork at the back; (18)

The vestibular bulbs, on the other hand, are two elongated solid erectile structures approximately 3 centimeters long and are made up of abundant vascularization around them; The ends of the posterior part are continuously with the Bartholin glands, these are connected to the vestibule with an approximate distance of 2 centimeters, they secrete whitish mucus and fulfill the function of lubricating the area. (19)

The hymen in a virgin woman constitutes a kind of membrane, its concavity is directed towards the center of the lower opening of the vagina, narrowing it in part. It is an incomplete septum that limits the vulvar and vaginal canals. In general, there are several types of variable shape, among them semilunar, annular and septate stand out; but there are cribriform, dentate, microperforated, subseptum, imperforate hymen and agenesis or absence of hymen. (Figure 2). Whatever the type, it has an internal or upper surface, on which the rough projections of the walls of the vagina continue. (twenty)

The perineum is a rhombus-shaped area which is located between the end of the posterior wall of the vagina and the anterior anal wall; accompanied by the perineal body,

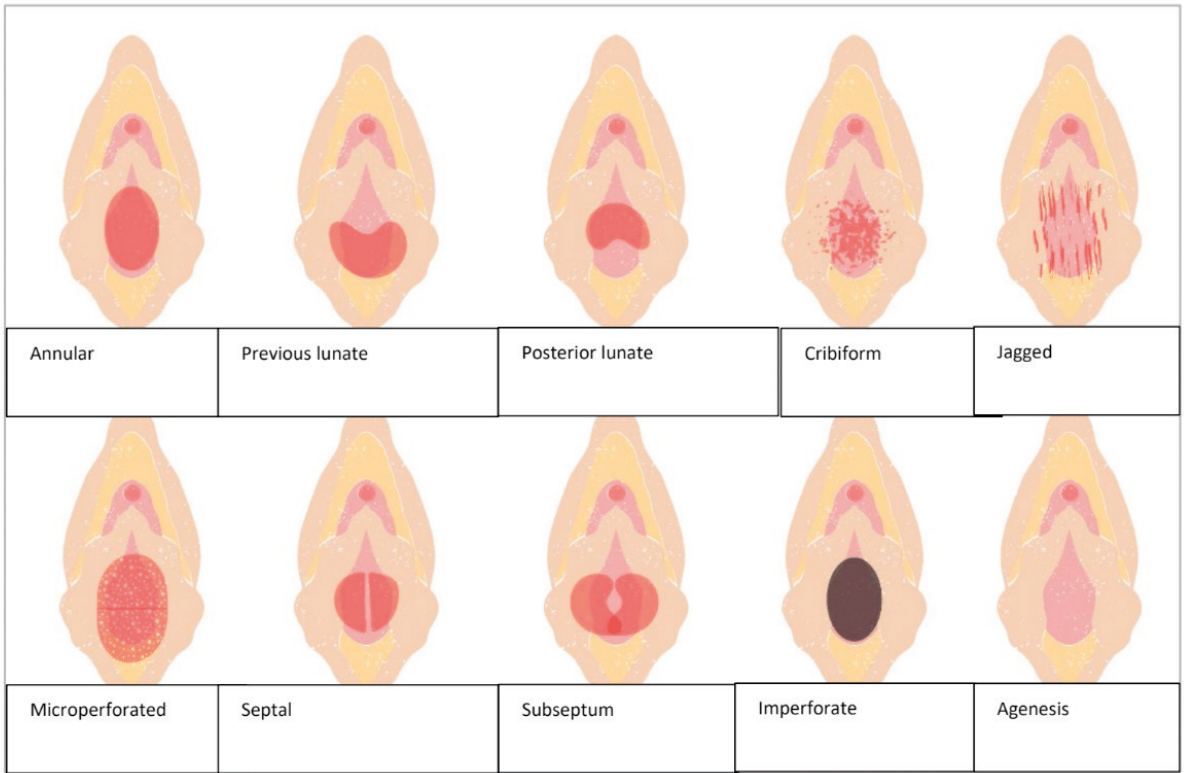
which corresponds to a mass located between the anus and the distal part of the posterior vaginal wall. The anus, 3 to 5 centimeters long, is located in the medial part of the posterior perineal at the floor level of the levator muscles, and is covered by an extension of the external skin. (21)

## TYPICAL AND ATYPICAL INJURIES IN SEXUAL VIOLENCE CRIMES

According to the protocol for Comprehensive Care for women and members of the family group affected by sexual violence in Peru published in 2020, it explains the steps to be taken to detect sexual violence through physical and sexual assessment, this is carried out by the medical professional; and there are six aspects to carry out the inspection in an orderly manner: (22)

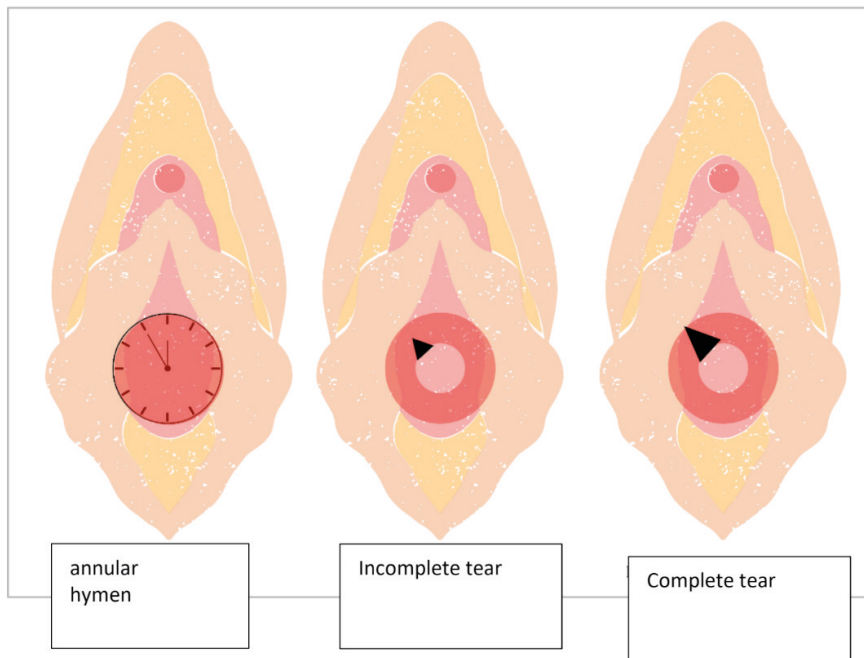
**1. Before the physical exam:** It is necessary to inform the victim in clear and simple language of the procedure that is going to be carried out, request and carry out informed consent/assent to the person involved in sexual violence, have support in terms of professional medical equipment to perform the physical examination, That is, having a witness to perform the procedure, preferably a professional in the area of gynecology or obstetrics; and have the necessary medical utensils for the physical examination, such as personal protective equipment, gynecological bed, vaginal canal sample collection kit. (22)

**2. Physical exam,** the first step is to record the state in which the affected person is captured and vital signs are taken, then perform an examination of the face, review of the conjunctiva, nasal passages, mandibular edges, eye orbits, oral cavity mucosa + collection shows. In addition, evaluate the scalp where it is observed if there are any absences, inspection



**Figure 2:** Types of Hymen

Source: Own elaboration



**Figure 3.** Identification of tears according to clock hands.

Source: Own elaboration

and palpation of the neck, hands, wrist, forearms, armpits, breast region, abdomen and lower limbs. (24)

**3. General inspection:** It is essential to record anthropometric measurements, signs of dehydration and nutritional status and general condition, as well as a general evaluation looking for characteristics compatible with sexual assault, considering the genital, paragenital and extragenital areas. If there are abnormalities, the wounds, ecchymoses, petechiae, excoriations, hematomas, physical signs, specifying size, color and shape, must be examined and indicated in a pictogram. In patients who are unconscious, it is necessary to take samples where fluids are found. (23, 25)

**4. Clinical examination:** According to the Peruvian guide for the comprehensive care of people affected by gender-based violence, published in 2017, it explains how the clinical examination is carried out, according to the topography, in which the clinical examination must be carried out in the genital area; This consists of observing the labia majora, labia minora, vaginal introitus, urinary meatus, clitoris, hymen, vulva and perineal region. In the vulvar area, the presence of secretions and lesions must be visualized and described. For the examination of the hymen, it is necessary to describe the type of hymen, which can be annular, semilunar and labiate; identify tears in the hymeneal border and will be described clockwise (Figure 3). (26)

In the vaginal canal, the lesions are detailed; after exploration through speculoscopy, the lesions found are recorded; making a record through graphics or pictograms that must be schematized at the national level. In the anal region, the patient is placed in a genupectoral position and, elevating the gluteal region, external aspects are inspected, sphincter,

perianal folds, presence of lesions, looking for tears and, if possible, with the use of an anoscope, detect lesions and record them. according to the hands of the clock. (23,24)

5. Examination of the paragenital area: upper and lower limbs are evaluated on both the anterior and posterior sides, counting the number of lesions found; Signs of ecchymosis and excoriations are generally detected, especially on the wrists and ankles. In the abdomen and pelvis it is necessary to focus on the search for ecchymoses resulting from the weight of the aggressor. (25)

6. Examination of the extragenital area, through inspection and palpation of the neck to detect nail stigmas, ecchymoses, sigilations, hematomas or signs that may be caused by the removal of accessories, followed by the breasts where sugilations, rib fractures can be observed. or signs of bites, in the mouth look for an injury to the lips or mucosa, due to the attempt to silence the victim's request for help or due to the introduction of objects or the penis; Collect a sample to investigate the possible presence of semen. (26)

## **AUXILIARY DIAGNOSTIC MEANS FOR VERIFICATION OF INJURIES**

When there is a sexual assault, medical personnel need evidence to justify this act, so it is necessary to take samples that will be used as evidence to determine the guilt of the aggressor; Therefore, the collection of evidence is needed, which may be clothing fiber, another person's hair, fluid residues such as semen, blood, saliva or vaginal secretions. (24)

## **COLPOSCOPE**

Erin Clifton, publishes about colposcopy in 2020, and defines it as a sensitive technique for subtle genital lesions, and that there are currently colposcopes with a camera which allows detecting and capturing photographs of the lesions found; In addition, toluidine blue is usually used on lesions and then presented as evidence. (28) In the studies carried out by Vandeven, she mentions that colposcopy is useful in 87% of lesions compared to macroscopic inspection with 40% usefulness. (29)

Staining techniques in colposcopy at the vaginal level are used through solutions, and the most common is toluidine to detect lacerations in mucous membranes that cannot be identified macroscopically, which is why Zilkens R, in 2017, performed A study revealed that the combination of these techniques favors 97%, while the use of toluidine staining without a colposcope gives an effectiveness of 40 to 58%. (30)

## **VAGINAL SWAB**

Laitinen et al. describes regarding the collection of samples in the vaginal canal, which is performed through speculoscopia, it is generally performed by a gynecologist, who in a lithotomy position places a speculum in the vagina that will allow macroscopic observation of secretions and identification of the color of them. (25)

The technique consists of introducing a long swab into the vaginal canal and rubbing it on the walls of the vaginal canal where the secretions are located; Then, by means of scanning, it is placed on the slide and it will be observed through an optical microscope that allows observing and demonstrating the presence of sperm or blood cells that will be useful to define if there are lesions that have left blood residue. (25)

## **RECTAL SWAB**

In order to demonstrate the presence of semen in the rectal area, it is necessary to do so immediately after the violation, since if a fecal bowel movement is performed, it can be expelled through contractions and the release of feces; But a sample of feces must also be looked for in the attacker's genital area, because if I do not use protection, it may prove guilt. (28)

In addition, a search is also carried out for remains of organic tissues that may be found as a result of scratches to the sexual offender, presence of pubic hairs, loose or torn hairs which may also be covered with fluid, be it semen, vaginal secretion or blood; Therefore, hair collection is necessary. (29)

## **BUCCAL SWAB**

Two dry swabs are used to obtain material from the oral mucous membranes and the edge of the gums; The swab is introduced into the oral cavity and passed through each area in a circular direction. The swab must rotate so that it is in contact with the mucosa; Subsequently, a smear is made on the slide which must detail where the sample was collected; Then it will be observed through the microscope to identify remains of semen, observing sperm. (23)

In the mouth, due to being in contact with enzymes and saliva turnover, it is possible to identify sperm remains for up to 6 hours. However, the presence of fungi, secretions or some physical evidence of the aggressor can be detected. (28)

## **FLUIDS IN ACTS OF SEXUAL VIOLENCE**

Regarding semen, Vargas Alvarado, in 2012, classified sperm as motile and non-motile. These are very sensitive to the environment in which they are exposed, they degenerate very quickly after ejaculation; The



amount of time that has passed is essential in cases of rape. If motile spermatozoa are found in samples taken from the vagina, it can be concluded that ejaculation was 3 hours ago, but if non-moving spermatozoa are observed it means that ejaculation occurred 24 hours ago and immotile spermatozoa can be found on clothing until after one year. (27)

Collins and Bennet, in their study published in 2015; On the other hand, they detail the sperm by their characteristics, whether they are intact or without a tail, in the anus the sperm degenerate much faster compared to the vagina; They lose their tail in less than 6 hours and only the head can be observed up to 65 hours after being exposed to semen. (28).

Sachs, determined in a study from Philadelphia, that when there is a sexual crime, but there is no ejaculation inside the vaginal canal, the presence of seminal fluid is investigated and this is detected through an immunoassay, when the p 30 protein is found, and This hormone must not be found in any secretion of the female body, because this is a glycoprotein that is derived from the human prostate. (29)

Vargas Alvarado also refers to the remains of blood, however, it is done by taking samples of stains found on both the victim and the aggressor, to determine who they correspond to, they are typed and the diagnosis of ABO antigens is carried out. To detect blood when hours have passed or prior cleaning has been carried out, a substance called luminol is needed, which is the most effective compound for identifying blood residue, because when in contact with it it will give a blue color that will last. approximately 30 seconds. (27)

On rare occasions, traces of urine are detected, this occurs more frequently in cases of sexual perversion, tests are used that look for urea and creatinine, which are the main components of urine that can be accompanied by the presence of epithelial cells that are

part of the Urinary tract; Depending on availability, DNA is also obtained from the cells of the urinary tract; however, bacterial destruction makes this method impossible and less effective. (28)

## **PREPARATION OF THE OPINION FOR CRIMES OF SEXUAL VIOLENCE**

A crime from the scope of jurisdiction refers to “any behavior that is contrary to what is established by the applicable legal framework and that is punishable by a penalty”, linked to the sexual aspect, it can be interpreted as aggression, harassment, abuse, provocation, rape or exposure of private parts; that is intentional towards another person of any sex and age. (28)

In the constitution of the Republic of Ecuador, Article 171, defines rape as “carnal access, with total or partial introduction of the virile member, orally, vaginally or anal; or the vaginal or anal introduction of objects other than the virile member, to a person of any sex.” (29)

Carrillo Pedro, in 2017, talks about legal medical expertise in Ecuador, and defines it as “the scientific opinion that the medical specialist provides to the judge”; Because in crimes that involve an act of rape, the collaboration of legal medicine is needed to act correctly, through a medical-legal expert opinion, since the report will determine the evidence that proves whether or not an event of sexual rape actually existed. (31)

Antonio Calle, in 2020, after research for his book “Fundamentals of Legal Medicine in Ecuador”, describes the requirements for an expert opinion to be valid and must meet certain parameters in the expert report: (25)

1. “It must contain a detailed description of what has been examined, as observed by the expert.”
2. “State of the person or object of the

expertise, before the commission of the crime, if this were possible.”

3. “Determination of the time that has probably elapsed between the moment the infraction was committed and the moment the expertise is carried out.”

4. “The prognosis on the evolution of the damage, according to the nature of the expertise.”

5. “Final conclusions, procedures carried out to reach these and reasons on which they are based.”

6. “The date of the report.”

7. “Signature and signature of the expert.”

Hernández, in his text *Fundamentals of Legal Medicine*; The report of injuries is described, it is made by issuing a report which establishes the severity of the injury, the consequences or sequelae and the time required to heal; then the clinical evolution of the lesions is specified, in order to show how these lesions progress and can subsequently

be repeated; and it can be issued in the future when the injuries heal and leave a sequel or the affected person dies. (30)

## CONCLUSION

According to the reviewed literature, the role of the doctor is reaffirmed when receiving a patient who is a victim of sexual violation; The professional who recruits the patient must perform a thorough physical examination that determines lesions in the genital, genital and extra-genital areas; procedure that is mandatory and that must be detailed in the respective medical history.

Of the attacks that can be found in cases of sexual violence crime, the bibliographic review highlights that the predominant area is the genital area, where evidence can be collected that serves to clarify the truth; Therefore, the primary health care doctor must be familiar with the identification and recording of this type of injuries.

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