

# Clinical Forensic Aspect of Burn Injury in Domestic Violence: A Case Report

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**Abstract--Domestic violence is one case that increases from year to year. This is universal and can occur regardless of age, profession, economic status or education. Most of the victims are women and the perpetrators are usually her husbands. Domestic violence can be physical, psychological, sexual violence and neglect of the household which physical violence can be sharp, blunt, burn and other violences. A burn on the victim can be a single injury or many injuries. The presence of these injuries can endanger the victim, for example inhalation injuries that accompany burns can cause death. In this case report, on October 15th 2019, a woman suffered burns to the head, face, chest, both arms and legs, as a result of being doused and burned with gasoline by her husband who refused to get divorced. Based on the examination, the victim suffered second-degree burn and inhalation injury requiring ventilator. From a legal review in Indonesia, the perpetrators can be subjected to Indonesian Criminal Code Articles 353, 354 and 355 and Law Number 23 of 2004 concerning the Elimination of Domestic Violence Articles 44 and 45. The conclusion is a woman who suffered the threat of death, due to burns on the face and chest, because of her husband's action**

**Keywords: domestic violence, burn injury, inhalation injury**

## I. INTRODUCTION

Families are often perceived as a sanctuary, a place where individuals seek love, safety, security and shelter. But the evidence shows that some acts of violence actually occur in the realm of family or household. Acts of violence that occur here are called domestic violence where the term domestic refers to the type of relationship involved, not based on the place where the act of violence took place.(1,2)

Domestic violence is universal and can occur regardless of age, profession, economic status or education of the individuals who experience it. It is not only a matter of health, economy, education and so on, but it is also a matter of human rights. In many cases, domestic violence is present as violence perpetrated by men against women. In this case most cases of violence were experienced by adult women and the perpetrators were usually their husbands.(1-4)

Global estimation published by WHO show that around 1 in 3 (35%) of women worldwide have experienced physical and / or sexual violence in their lives. Most of this violence is domestic violence. And almost one third (30%) of women worldwide have partners, reporting that they have experienced physical and / or sexual violence from their partners. Globally as much as 38% of cases of murder of women committed by men against their partners.(4)

In Indonesia, complaints of cases of violence against women in 2018 increased by 14% from the previous year. This increase in complaints indicated increasing public awareness to disclose cases of violence against women and improvement in the mechanism for recording and documenting cases of violence against women in service institutions. The National Commission on Violence Against Women in 2019 recorded cases of violence against women and girls reported throughout 2018, where there were a number of findings, including:

- Domestic violence was still the dominant case reported
- An increase in Marital Rape cases (rape in marriage), which reached 195 cases in 2018
- Incest (rape by someone who has blood relations) was still quite high reported in 2018, reaching 1071 cases in 1 year. The highest perpetrators of incest were biological father and uncle.
- Complaints of cases of violence in courtship to government institutions were 2073 cases. The highest form of violence in dating relationships was sexual violence.(5)

The United Nations defines violence against women as any act of gender based violence that results in, or is likely to result in, physical or sexual damage or suffering to women, including threats from such actions, coercion or arbitrary deprivation of liberty against women can be in public or in private.(4)

Men are more likely to commit violence if they have low education, history of child abuse, exposure to domestic violence against their mothers, dangerous alcohol use, unequal gender norms including accepting violence, and a feeling of right to women. Women are more likely to experience domestic violence if they have low education, exposure to mothers who are abused by a partner, abuse during childhood, and attitudes to accept violence, male privileges, and subordinate status of women.(2-4)

In a legal review in Indonesia, the rules on domestic violence are regulated in Law Number 23 of 2004 concerning the Elimination of Domestic Violence. According to the Law, the definition of Domestic Violence is any act committed against a person, especially women, which results in physical, sexual, psychological, and / or neglect of domestic suffering or suffering, including threats to commit acts, coercion, or deprivation of independence unlawfully within the scope of the household.

Forms of domestic violence can be:

- Physical violence, including a series of actions that use physical coercion that can cause injury or even death of the victim.

- Psychological violence, which is every act and speech that result in fear, loss of self-confidence, loss of ability to act and feelings of helplessness to the victim.
- Sexual violence, which is any act that includes sexual harassment to force someone to have sexual relations without the consent of the victim or when the victim does not want to; and or using methods which are not natural or preferred by the victim; and or distance (isolate) from their sexual needs.
- Economic violence is any act that restricts people (women) to work inside or outside the home that produces money and or goods; or let the victim work to be exploited.
- Act of negligence, which let a woman or family members does not fulfill them on nutrition, education, access to health care, and etc.(1-3)

Domestic violence does not describe a single violence event, but rather multiple violence which can include physical, psychological and sexual violence.(2) For example physical violence that can affect psychological conditions, economic violence that can affect physical conditions, and others. In this case, forensic clinical aspects play an important role. Doctors or medical personnel must be able to know the physical and psychological conditions experienced by the victim, whether due to acts of domestic violence or because of other things.

Clinical forensic examination of people who suffer injuries due to violence, in essence to provide clarity of the problems that occur, such as the type of injury, type of violence and qualification of the wound. The role of forensic doctors in domestic violence cases is an aid for victims to get their rights, namely justice.

## II. CASE REPORT

On Tuesday, October 15, 2019, at around 09:00 GMT+7, a 19-year-old woman suffered burns to the head, face, chest, arms and legs. This happened after she had a dispute with her husband and submitted a planning to divorce. Her husband disagreed with her plan and finally doused her face with gasoline and lited a fire. Before this incident, she had just come to the house after leaving the house. She stayed at her parents house for 1 day to calm down due to psychological violence for almost 2 months after their marriage.

She was immediately taken by her mother to the nearest hospital after the incident. After receiving first aid at the hospital, she was referred to Dr. Soetomo Surabaya. She arrived at Emergency Hospital Dr. Soetomo Surabaya on October 15, 2019 at 12:56 GMT+7 and was requested for Visum et Repertum by the Gayungan Sector Police of the Surabaya Polrestabes number B/13/X/2019/Sektor.

On physical examination, it was found that general condition of patient appeared to be pain with full awareness (compos mentis), blood pressure 130/80 mmHg, pulse rate 120x/minute, respiratory rate 22x/minute, temperature 37<sup>0</sup>celcius and oxygen saturation 99% (with oxygen mask). On her body, burns were found on the entire face, up to the ears, neck, chest, both arms and legs. These burns were

irregularly shaped, in the form of blackish-brown skin bubbles filled with liquid accompanied by peeling epidermis.

Based on doctor's examination, she suffered second degree burns with inhalation injury, eye trauma and psychological disorders (anxiety and depression). There were two kinds of therapies given to her, medical and psychiatric therapy. The former was consisted of installation of breathing aids namely ventilators, debridement wound and skingraft coming from her skin. The latter consisted of trauma healing therapy. She was hospitalized for 22 days and was discharged in good condition, then continued to the surgery clinic at Dr. Soetomo Hospital.

## III. DISCUSSION

Burns are a type of injury, where is damage to the skin and surrounding tissue, by sources of heat or high cold temperatures, electricity, chemicals, light and radiation. Types of injuries can vary and have different treatments depending on the type of tissue affected, the severity and complications that occur due to the injury. For example, burns that occur on the face and neck area are more dangerous than burns on the lower limbs, with the danger of complications of airway obstruction.(6-10)

Based on the depth of the damaged tissue, burns can be classified into four degrees, such as: burn degree 1,2,3 and 4. The differences among these four degree burns are the first degree burns occurs on the surface of the skin (superficial skin) so that the skin will appear reddish, without bullae, edema and pain. On the skin there will be bullae, a little edema, and severe pain. The second degree burns involves a portion of skin thickness involving all of the epidermis parts and small amount of dermis part. The third degree burns occurs in all of layers of the skin and it can be necrosis. Wound appears white and causes loss sensation, moreover it can be scarring after the healing. Fourth degree burns is usually called charring injuries because the skin looks black, looks like charcoal. The damage of this burns occurs on skin, subcutaneous tissue, moreover it affects bone. It is caused by the burning of the tissue.(6-8,11)

The wide of the burning wound is the next determining factor to decide the degree of injury in burns. A methode which is commonly used in the management of clinical forensic of burns cases is "Rule of Nine" method from Wallace. Determination of burn area according to Wallace's rule of nine is divided to: head and neck 9%, arms 18%, front body 18%, back body 18%, limbs 36%, and genitalia/perineum 1%. The patient's palm area is 1% of the body surface area. In children using the modification of the rule of nine Lund and Browder which distinguishes in children aged 15 years, 5 years, and 1 year.(8,11,12)

The criteria for light-severity of burns according to the American Burn Association can be categorized into 3 categories, namely: mild, moderate and severe category. Mild category burns occurs in degrees II burns area <15% or degree III area <2%. Moderate category burns occurs in second-degree burns of 15-20% or third-degree burns

<10%. Severe category burns occurs in degree II burns> 25% or grade III> 10% or affect the face, eyes, ears, feet, hands and genitalia, or due to high voltage electricity (> 1000V) or with complications of inhalation injury, accompanied by trauma other.(11,12)

Burns and inhaled hot air often occur together. When the hot air is inhaled, the pharynx and upper respiratory tract basically experience burns, moreover in severe conditions can occur if the hot steam is inhaled, because steam stores more heat energy and burns to the lower respiratory tract. Some deaths in burns occur due to laryngospasm due to the influence of hot air inhaled.(12–14)

As mentioned before, the determination of the degree of burn is assessed by the depth of the burn, the extent of the burn and the injury that accompanying the burn. In this case, it was found degree 2B burns as wide as 16% on the face, neck, chest, both hands and feet accompanied by inhalation injury. Inhalation injury in this case supports the diagnosis of severe burns.

Management therapy in this case is the ventilator installation at an early stage to secure the airway from inhalation trauma, the treatment of wounds in the form of debridement surgery, and skin graft operations (autografts) to avoid the granulation phase, especially in special places aesthetically and functionally.<sup>9</sup> Burns experienced result in patients getting severe condition and inhalation injuries that pose a threat of death.

From a psychological point of view, patients experience psychological violence by their husbands from the beginning of their marriage. She has not been allowed to leave her house, to have social media and handphone activities for almost two months. Her husband also often says painful words to her. This burning event makes the psychological pressure of the patient heavier, where she experiences anxiety disorders and depression that requires treatment from the psychiatric department.

Based on the description, the existence of physical violence accompanied by psychological violence, in the form of burns and psychological disorders on the victim, is sufficient evidence that the victim experienced domestic violence. Multidisciplinary collaboration and support from all parties is needed in handling cases like this.

In a legal review in Indonesia, Article 90 of the Indonesian Criminal Code explains the criteria for serious injuries to the body, such as:

1. Disease or injury that could not be completely healed or cause death.
2. Resulting in not being able to continuously in doing his work.
3. Resulting in the loss of one among five senses.
4. Resulting in permanent disability (verminking).
5. Paralyzed (verlamming), means there is no ability to move the limbs.
6. Mentally ill for more than 4 weeks.
7. Resulting in the abortion.(15)

Thus, the burns suffered by the victim in this case, meet one of the criteria for serious injuries from article 90 of the Indonesian Criminal Code, namely illness or injury that could not be completely healed or cause death.

Whereas the discussion of the Indonesian Criminal Code concerning severe and planned torture is regulated in Article 353 paragraph (2), 354 paragraph (1) and 355 paragraph (1), which reads:

- Article 353: Persecution with a pre-planned plan, is punishable by imprisonment for a maximum of four years. If the act results in serious injuries, the guilty person will be subject to imprisonment for a maximum of seven years.
- Article 354: Anyone who intentionally injures someone else's weight, is threatened because he committed severe torture with a maximum imprisonment of eight years.
- Article 355: Severe torture carried out in advance, is threatened with a maximum prison sentence of twelve years.(16)

In line with these rules, Law Number 23 of 2004 concerning the Elimination of Domestic Violence reads as follows:

- Article 44: Every person who commits an act of physical violence within the scope of the household is sentenced to a maximum imprisonment of 5 years or a maximum fine of 15 million rupiah. In the case of the act resulting in the victim getting sick or seriously injured, sentenced to a maximum imprisonment of 10 years or a maximum fine of 30 million rupiah..
- Article 45: Every person who commits an act of psychological violence within the scope of a household is sentenced to a maximum imprisonment of 3 years or a maximum fine of 9 million rupiah.

#### IV. CONCLUSION

The perpetrators violated the Indonesian Criminal Code Article 353 paragraph (2), Article 354 paragraph (1) and Article 355 paragraph (1). The perpetrators also violated Law Number 23 of 2004 concerning the Elimination of Domestic Violence Article 44 paragraph (2) and Article 45 paragraph (1).

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