The Essence Of Autopsy In The Criminal Investigation Process

Handar Subhandi Bakhtiar, Andi Muhammad Sofyan, Muhadar, Slamet Sampurno Soewondo

Abstract: The essence of an autopsy in the criminal investigation process is an attempt to uncover a truth related to what happened and ascertain the cause of death of the body or victim, so that in the investigation process can be known and confirmed the crime that caused the death of the victim so that the investigator can use the results of the autopsy examination as evidence, whether it is a crime or not a crime. The results of the forensic examination are objective and scientific material evidence and is one of the evidences that is difficult for the defendant to refute later in court.

Keywords: Autopsy, Cause of Death, Evidence, Criminal Investigation Process.

1. INTRODUCTION

An examination of a criminal offense in a judicial process is essentially seeking material truth (materiele waarheid) on the case (Lilik Mulyadi. 2012). This can be seen from the various efforts made by law enforcement officials in obtaining the evidence needed to uncover a case both at the preliminary examination stage such as investigation and prosecution as well as at the trial stage of the case (Syamsuddin Rahman, 2011). Material truth and justice are goals in the context of criminal proceedings, so that law enforcement officials are required to act and carry out their duties and obligations under the law as the realization of the principle of the rule of law. One of the efforts of judges in upholding justice and seeking and finding material truth in resolving / deciding criminal cases is foresight in using evidence in the process of proof in front of a court session. The effort to find and find material truth in a criminal procedure is closely related to the aspect of proof. With regard to evidence in the Code of Criminal Procedure Code, hereinafter abbreviated as KUHAP, there are provisions including how the evidence system in Article 183 and the evidence that can be used Article 184. The verification system in the Criminal Procedure Code is contained in the formulation of Article 183 Criminal Procedure Code (Handar Subhandi Bakhtiar, et all. 2019). This article stipulates that "Judges may not convict a person unless if with at least 2 (two) valid evidences he obtains the conviction that a criminal act actually occurred and that the defendant is guilty of committing it (Masyelina Boyoh, 2015)." requirements for imposing a criminal offense against a person, namely: "There are at least two valid evidences; and There is confidence in the Judges obtained based on the evidence. "If there are already two valid evidences, but the judge is not convinced that the defendant is guilty of committing a crime, then the judge will not sentence the defendant. Vice versa, the judge's conviction solely without the support of two valid evidence, cannot be the basis for convicting the defendant. From these two conditions, it is clear that the proof system adopted by the Criminal Procedure Code is a system of proof according to the law to a certain extent (negative wettelijk bewijsleer) (Masyelina Boyoh, 2015).

Proof is a provision that contains inheritance and guidelines on the ways that are justified by the law to prove the wrongs that were charged to the defendant. Proof is also a provision governing evidence that is justified by the law and which can be used by judges to prove the accused's guilt. In connection with this, the judges must always be careful, careful and mature in assessing and considering the issue of proof. The judge must examine the extent to which the minimum limit of the strength of the evidence or evidence of each evidence referred to in Article 184 of the Criminal Procedure Code (M. Yahya Harahap. 2005). In the Republic of Indonesia Law No.8 of 1981 concerning the Criminal Procedure Code (KUHAP) in Article 184 Paragraph 1 which states: Legal evidence is:

a. witness statement;

b. expert statement;

c. letter;

d. instructions; and

e. defendant's statement.

The regulation of the development of evidence and proof of criminal acts in specific criminal law legislation in Indonesia has experienced developments in line with the advance of crimes characterized from transnational to extraordinary crime and the birth of a new modus operandi of crime, the impact arising from crime will be even greater. For law enforcement against crimes that are already very advanced, the legal arrangements in Indonesian law, namely the Criminal Code (KUHP) of course are already inadequate knowledge and technology, crime and the mode of operation, and the community will always influence the development of tools evidence of criminal procedural law in Indonesia, both regulated by the Criminal Procedure Code and in specific legislation (Alcadini Wijayanti, et all, 2012). The existence of evidence or better known as proof is a very urgent aspect in the court proceedings so there is certainty and law enforcement. Because of the accuracy or accuracy of the evidentiary effort, justice that wants to be realized and is very dependent on legal certainty. Accurate verification is the way to uphold justice. But on the contrary, inaccurate verification will give birth to injustice and legal uncertainty. With proof, the judge will get a clear picture of the events that are being disputed in court (Alcadini Wijayanti, et all, 2012). The main function of the criminal justice process is to seek the truth as far as can be achieved by humans and without having to sacrifice the rights of the suspect. The guilty will be found guilty and the innocent will be found not guilty (Abdul Mun'im Idries, 2011) To uncover legally, about whether a crime has actually taken place and what the real cause is and with what instrument the crime was committed, concrete evidence is

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needed at the time of the crime which can be legally justified. For further investigation and investigation and resolution of legal issues until finally the termination of the case in court, the assistance of various experts in related fields is needed to make clear the course of events and the relationship between one action with another in the series of events.

2. FINDING CAUSES OF DEATH (COD)

Crimes that result in the death of a person often occur. In proving the existence of death in this type of crime is generally not difficult, because the death of a person can be proven from the existence of medical information that states someone is dead (Ahmad Sofian, 2018). In medical science, death is interpreted when the heart stops working, there is also a saying when death occurs in the brain stem or when someone stops breathing (Richard G. Singer, et al, 2007). Abdul Mun‘im Idries said that in determining the moment of death the medical indicators used were the nervous system, respiratory system, and cardiovascular system (heart and blood vessels). When one of the three systems is disrupted so that it cannot function properly, it will disrupt the other two systems because the three systems are interconnected with one another, and if in such circumstances human survival cannot be sustained anymore, it is dead (Abdul Mun‘im Idries, 2015). When dealing with deaths whose plural dimensions are, a certain amount of evidence is needed to determine the cause of death. Sometimes the evidence presented in court is not enough to determine the cause of death of a person, meaning that not all evidence presented can answer the cause of death. Knowledge is needed that can link these facts, which can analyze the sequence of facts and draw conclusions from a number of these facts. The science that can link and analyze various causal factors and relate them to consequences is the science of causality which is then called jurisprudence in law (David Ozonoff, 2005). The doctrine of causality is used in order to know what actions (deeds) are the cause of death. In other words, the teachings of causality function as a filter or filter of actions that are relevant as causes (Ahmad Sofian, 2018). When a person is found dead, and the death has something to do with the actions of others, then the death event can be a puzzle and can also be connected with criminal law (Moeljatno, 1985). When the loss of a person’s life does not have to be immediate or shortly after the action, but it can arise later, the important result is that it is really caused by the action. For example, after being stabbed, due to severe injuries he was hospitalized, two weeks later due to injuries due to stabbing, the victim died (Moeljatno, 1985). Since ancient times, human life is the most important thing that must be protected, so that the problem of this life has been arranged even by primitive tribes. However, looking back at Hammurabi’s legislation at the end of the 18th century BC, murder and premeditated murder are not offenses (Ahmad Sofian, 2018). Murder becomes an offense born of customary law. In Babylonian patriarchal society, the killing of fathers is considered one of the most serious offenses. In the law beating fathers and mothers is threatened with capital punishment (J.M. van Bemmelen, 1987) Some criminal acts of murder require proof, that the perpetrators’ actions caused the death of the victim. Proving the facts is usually not difficult, but there are quite complicated challenges when the murder incident is related to the issue of causality, in this case the prosecutor as the public prosecutor must be able to prove that the actions of the accused have caused the death of the victim. In the Indonesian legal tradition, to prove one’s death, a forensic test of death is usually carried out. Forensic science will draw conclusions about the cause of death, whether due to persecution, or because of poison or other causes. With a forensic test, it will be easily known who is the Cause of Death, Mechanism of Death, Manner of Death, and Time of Death.

a) Cause of Death

The cause of death is illness or injury, or a combination of illness and injury, which initiates an unbroken chain of events that leads to the cessation of life (Prahlow, J. A, et al, 2011). There may be one particular cause of death, or several contributing causes of death. There may also be an underlying, intermediate, and direct cause of death, following the order. For statistical purposes, as well as how to determine death, the underlying cause of death is the most important, and must be included in the cause of death section on the death certificate. Declaration of death can be very simple or somewhat complicated, depending on the type and circumstances of the case. The timing of the initial incident has nothing to do with whether it can be considered an underlying cause of death or not. When the cause of death is determined, it is important to consider any and all contributing factors. Although in many cases anatomical and / or laboratory findings (toxicology, microbiology, and chemistry) allow the determination of the exact cause of death, sometimes it is not clear either. This happens for example when there are many illnesses, injuries, and or laboratory findings that are sufficient to explain death. The lethal part may be caused by one of a number of factors, or due to a complex interaction between several factors, or all of them (Prahlow, J. A, et al, 2011). In other conditions such as cases where there are no significant anatomic or laboratory findings that can cause death. These cases include cases where there is insufficient information about the state of death to allow the diagnosis of death to be made with an "exception". Examples include death by drowning, certain fatal electric shock, death from certain asphyxia (especially in infants), deaths related to extreme temperatures (hypothermia and hyperthermia), and certain natural deaths, including deaths related to seizure disorders and suspected cardiac dyssrhythmias (heart rhythm irregular). Another possibility with a case that has no anatomical or laboratory explanation for death occurs when a ‘diagnosis of exclusion’ is not considered. In these circumstances, it must be recognized that the exact cause of death cannot be made and that the cases are usually categorized as undetermined (Prahlow, J. A, et all, 2011).

b) Mechanism of Death

The mechanism of death refers to the physiological, metabolic, or anatomic changes produced by the underlying cause of death that causes death (Prahlow, J. A, et all, 2011). The mechanism of death signifies pathological changes resulting from causes of death including bleeding, infection, fatal arrhythmias. It is possible that the mechanism of death is shared by different causes of death, and vice versa. If bleeding can occur due to blunt trauma, puncture, or lung carcinoma. Conversely, because the cause of death can cause the origin of different death mechanisms such as gunshot wounds can cause bleeding, but if the victim survives, complications of infection are the mechanism (Schmitt, A., et all, 2006). For example a middle-aged man who was taken to hospital after
being shot several times during a robbery. He underwent an emergency operation where the organ affected by the bullet was repaired. The man’s condition improved somewhat, but he suffered pneumonia which was followed by kidney failure, liver failure, and finally heart failure. An autopsy examination revealed that he had suffered from severe lung and heart disease. The cause of death was multiple gunshot wounds because they triggered a series of deadly events. However, the treating doctor was interested in the mechanism of death, multi-organ failure, and questioned why this patient experienced multi-organ failure when all of his injuries were repaired. The treating doctor also wanted to know about pre-existing heart and lung disease without whom he might have survived. Pre-existing disease is not the cause of death due to injury takes precedence over illness in determining the cause of death. In other words, injury defeats disease (James, S. H., et, all, 2014)

3) Suicide
Suicide refers to death resulting from the deliberate action of a person to kill himself. In uncomplicated cases, the victim's actions are clear, with clearly stated intentions and the presence of one or more suicide notes. However, because most suicide victims do not leave records, intentions must be determined from the integration of the scene and the overall information of the death investigation.

d) Murder
Although in cases of suicide individual intentions play an important role in determining the manner of death, murder decisions do not always require evidence that the individual who committed the murder actually intended to do so. While proof of intent is not required in murder cases, there are cases which are sometimes carried out as murders in which the attacker's intentions play a role in determining the manner of death. For example, if a driver of a vehicle is deliberately chased by another person who tries to harm the vehicle from the road, crashes and dies, then this case is considered murder. Sometimes, the condition of the body may be such that even though the exact cause of death cannot be determined, the circumstances surrounding death are clearly murder. An example of this is a decaying body hidden in an isolated location in a shallow grave. Cases where it might be quite difficult to make decisions about the manner of death of a murder include cases where acts of negligence or carelessness have resulted in the death of another person death (Prahlow, J. A, et all, 2011). The National Association Of Medical Examiners’ NAME has guidelines for determining the manner of death which includes death (Prahlow, J. A, et all, 2011):

a. Level: If more than one cause of death is listed, and each has a different method of death, then unnatural methods of death take precedence over natural methods of death. Likewise, the method of death by suicide must take precedence over accidents, and the manner of death by suicide must take precedence over all other means.

b. Death associated with acute (rapid) toxic effects of drugs taken during drug use activities is usually considered an accident.

c. Deaths related to chronic (long-term) effects of drug abuse are usually considered natural deaths.

d. If there is an adequate intervention process that can break the chain linking the original event of death, then it is not appropriate to conclude that death is the result of the original event.

e. Time of Death During a post-mortem (forensic autopsy), the forensic examiner wants to determine when the person died. By setting the time of death, a suspect can be proven innocent just because he is not in the same place as the victim at the time of death. On the other hand, the suspect can remain a related person if he is in the same area when someone dies. Many factors are used to estimate the time of death. These factors are discussed in more detail in the following sections (https://www.pdfdrive.com/death-meaning-manner-mechanism-cause-and-time-e37290532.html accessed on 10 September 2019):

1) Livor Mortis
Livor mortis means, approximately, the color of death. When the body begins to rot, blood seeps through the tissues and
settles in the lower part of the body. Red blood cells begin to break down, spilling their contents. Hemoglobin, a substance in red blood cells that carries oxygen and gives blood its red color, turns purple when it spills out of the cell. This purple color is seen on the skin wherever blood is collected. The liver mortis process takes time. The collection of blood in the body, known as lividity (lividity), provides clues about how long the person has died. The first individual begins about two hours after death. Discoloration becomes permanent after eight hours. If death occurs between two and eight hours, the eyelid will appear, but if the skin is pressed, the color will disappear. After eight hours, if the skin is pressed, the individual will remain. The temperature around where a person dies affects the time needed to live in sets. If the corpse is left outside on a hot, hot summer day, livor mortis occurs at a faster pace. If the body is left in a cold room, livor mortis is slower. This is why it is important to note the environmental conditions around the corpse. The level of livor mortis is also influenced by anything that blocks blood flow, such as a tight watch or belt. In addition to providing an estimated time of death, livor mortis can provide other important clues. Because gravity draws blood to the ground, the individual can reveal the position of the corpse during the first eight hours. If the body is facing down in a flat position, blood will pool along the face, chest, abdomen, and parts of the arms and legs that are close to the floor. If the body is positioned on its back, blood will pool along the back, buttocks, head, and parts of the arms and legs close to the floor. If the corpse is sandwiched in a standing position, blood will collect in the legs and lower legs and lower arms and hands. The individual can also reveal if the body has been moved. For example, if the person dies sitting in a chair, the individual will appear on the back of the thighs, buttocks, and lower legs. If the body is then removed so that the body is lying face down on the floor, lividitas will also be found on the face, chest, stomach, and front surface of the legs. Multiple lividity can occur if the body is kept in one position two hours after death and then moved to the second position before the lividity becomes permanent. It is not uncommon for a murder victim to be killed in one place and then transported in another.

2) Rigor Mortis
Rigor mortis means, roughly, the rigidity of death. This is temporary and can be very useful in determining the time of death. Rigor mortis begins within two hours after death. Stiffness starts in the head and gradually decreases to the feet. After 12 hours, the body is in the most rigid condition. The stiffness gradually disappears after 36 hours. Sometimes, depending on body weight and temperature in the area, stiffness may remain for 48 hours. If an object does not show visible stiffness, the corpse may die in less than two hours or more than 48 hours. If the body is very rigid, then the body has been dead for about 12 hours. If the body shows stiffness only on the face and neck, then the stiffness has just begun, and the time of death is more than two hours. If there is stiffness throughout the body, but lack of stiffness on the face, then the body tends to lose stiffness, and death occurred more than 15 hours ago. Rigidity occurs because the skeletal muscles cannot relax and remain contracted and hard. In life, muscle flexing and relaxation occur when muscle fibers glide back and forth. Every time the muscles contract, they release calcium. In healthy, living muscles, calcium molecules are released from cells. This requires energy, and for cells to get energy, they need oxygen. After death without circulation, the flow of oxygen to cells stops, and calcium builds up in muscle tissue. In the presence of extra calcium, muscle fibers remain rigid and contracted. Because muscles control the movement of bones, joints look stiff as do muscles. The muscles finally begin to relax when the cells and muscle fibers begin to dissolve with autolysis. Many factors affect when rigor mortis occurs and how long it lasts. When trying to estimate the time of death, these factors need to be taken into account:

- Ambient temperature. The cooler the body, the slower the onset of stiffness. The warmer the body, the more rapid stiffness occurs because chemical reactions occur faster at higher temperatures.
- Weight of a person. Body fat stores extra oxygen and slows rigor mortis. Someone with less oxygen stored in the body experiences stiffness more quickly.
- Type of clothing. Because clothing helps keep the body warm, the presence of clothing accelerates rigor mortis. The naked body cools faster, which slows the onset of rigor mortis.
- Disease. If someone dies of a fever, body temperature will drop even higher, and rigor mortis will be regulated more quickly. If someone experiences hypothermia, the onset of stiffness will be slower.
- The level of physical activity just before death. If a person exercises or fights before dying, stiffness will develop more quickly. This is true for several reasons, including the fact that exercise increases body temperature and reduces the availability of oxygen to cells in the body and increases lactic acid levels.
- Exposure to sunlight. The body that is exposed to direct sunlight will be warmer, and rigor mortis will occur faster.

Because so many variables can influence how quickly rigor mortis progresses, the exact time of death cannot be determined, it can only be estimated. However, when rigor mortis is combined with other factors, a more accurate time of death can be determined.

**Table 1 Time of Death Calculation.**

<table>
<thead>
<tr>
<th>Time after death</th>
<th>Event</th>
<th>Appearance</th>
<th>Circumstances</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-6 Hours</td>
<td>Rigor begins</td>
<td>Body becomes stiff and stiffness moves down body</td>
<td>Stiffness begins with the eyelids and jaw muscles after about two hours, then center of body stiffens, then arms and legs.</td>
</tr>
<tr>
<td>12 Hours</td>
<td>Rigor complete</td>
<td>Peak rigor is exhibited</td>
<td>Entire body is rigid.</td>
</tr>
<tr>
<td>15-36 Hours</td>
<td>Slow loss of rigor</td>
<td>Loss of rigor in small muscles first followed by larger muscles</td>
<td>Rigor lost first in head and neck and last in bigger leg muscles.</td>
</tr>
<tr>
<td>36-48 Hours</td>
<td>Rigor totally disappears</td>
<td>Muscles become relaxed</td>
<td>Many variables may extend rigor beyond the normal 36 hours.</td>
</tr>
</tbody>
</table>
Table 2 Factors Affecting Rigor Mortis

<table>
<thead>
<tr>
<th>Factors Affecting Rigor</th>
<th>Event</th>
<th>Effect</th>
<th>Circumstances</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cold temperature</td>
<td>Inhibits rigor</td>
<td>Slower onset and slower progression of rigor</td>
</tr>
<tr>
<td></td>
<td>Warm temperature</td>
<td>Accelerates rigor</td>
<td>Faster onset and faster progression of rigor</td>
</tr>
<tr>
<td>Activity before death</td>
<td>Aerobic exercise</td>
<td>Accelerates rigor</td>
<td>Lack of oxygen to muscle, the build up of lactic acid, and higher body temp</td>
</tr>
<tr>
<td></td>
<td>Sleep</td>
<td>Slows rigor</td>
<td>Muscles fully oxygenated will exhibit rigor more slowly</td>
</tr>
<tr>
<td>Body weight</td>
<td>Obese</td>
<td>Slows rigor</td>
<td>Fat stores oxygen</td>
</tr>
<tr>
<td></td>
<td>Thin</td>
<td>Accelerates rigor</td>
<td>Body loses oxygen quickly and body heats faster</td>
</tr>
</tbody>
</table>

3) Algor mortis
Algor Mortis means, roughly, heat death and describes the loss of temperature in a corpse. When a person lives, the body maintains a constant temperature. To keep our temperature within the normal range, many parts of our body work together, including the circulatory system, breathing and nerves. In death, the body no longer produces heat and begins to cool. To measure the temperature of a corpse, a forensic investigator inserts a thermometer into the heart. Having a standard location to measure body temperature ensures that investigators can compare the results. How quickly the body has lost heat has been measured, and investigators can determine how long the death occurred due to the temperature. About one hour after death, the body cools at a rate of 0.78 °C (1.4 °F) per hour. After the first 12 hours, the body loses about 0.39 °C (0.7 °F) per hour until the body reaches the same temperature as its surroundings. This is only an estimate and will vary depending on temperature and surrounding conditions. In cooler environments, the body loses heat faster than in hotter environments. If it's windy, heat loss will occur faster. The surrounding air temperature and other environmental factors are recorded when the body is found, because the environment will affect the rate at which the body loses heat. Excess body fat and the presence of clothing will slow down heat loss. The time of death determined by the calculation of body temperature is always expressed as a time span because it cannot be calculated precisely; However, the rule of thumb is to expect heat loss of around 1 degree F per hour.

3. FINDING FOR MATERIAL TRUTH
The nature of performing post-mortem (forensic autopsy) is to uncover a truth related to what happened to the body or victim, in the Correspondence Theory of Truth which is sometimes called the Accordance theory of truth, is a theory that holds that statements are true if it corresponds to facts or statements that exist in nature or the object to which the statement is addressed. The truth or condition is true if there is correspondence between the meaning intended by a statement or opinion and the object to which the statement or opinion is intended (Jujun S. Suriasumantri, 2009). Truth or a state is said to be true if there is a match between the meaning intended by an opinion with the facts (Amsal Bakhtiar, 2012). A proposition is true if there is an appropriate fact and states it as it is. Utilization of this theory in the implementation of post-mortem (forensic autopsy) with the aim of achieving a truth that can be accepted by everyone. A forensic doctor will examine and examine the truth attached to the victim or corpse seriously, so that what he sees and by using a scientific approach will reveal a truth. In addition to the theory of truth above, the essence of post-mortem (forensic autopsy) is to prove the causal relationship due to the death of a victim who is thought to have died as a result of a crime. In the teachings of causality states that a relationship or process between two or more events or circumstances of the event in which one factor causes or causes other factors. Causality relationships talk about the causes of an effect. It could be that a result arises from many causes (Eddy O.S. Hiariej, 2012). One of them, namely Theory condition sine qua non is also called an absolute theory which states that a disaster is every condition that cannot be eliminated for its effects. This theory was put forward by von Buri, Chairman of the German Supreme Court. According to von Buri, the terms (bedingung) are identical to the musabab and therefore each condition has the same value (equivalent). That set of conditions allows for an effect, therefore deleting one condition from that set will destabilize the whole set of conditions so that the effect does not occur (Johannes Keiler et all, 2015). It is understandable that this theory is also called the equivalent theory or bedingungstheorie. The doctrine of causality is used to analyze the relationship between one action with another action or the relationship between one factor and another factor that causes an effect. In the legal literature, the teachings of causality are used to analyze legal events both civil and criminal law, but lately this teaching has become increasingly used as a knife of analysis for material criminal acts ((Andi Hamzah, 2012; Jan Remmelink, 2003; JM van Bemmelen, 1987; Moeljano, 2002; Ahmad Sofian, 2018) In the teachings of causality, the nature of various causes can be in the form of a certain act, or a condition or an impetus and so forth. The search for a cause is not limited to just an act that can be convicted, but applies to all events or events (Ahmad Sofian, 2018). This approach is widely used in assessing the factors that cause one effect, these factors are called a series of causes (E. Utretch, 1994; Ahmad Sofian, 2018). In brief the teachings of causality can be described as follows: if event A influences event B, and that for event B to occur, event A appears first, so that the consequences of event B are indeed influenced by event A and not by accident. In almost the same view, an action results in a consequence or the result of a prohibited result, for example: when an assassination event occurs, someone will die, likewise when a shooting event occurs, someone will be injured. This event shows that someone has caused the result or consequence. In this case the question that can be asked is if the person did not commit the action whether the consequences or results of the act will arise, if the person is the cause of the outcome, then there is a causal relationship between the act of killing or shooting with the result (Ahmad Sofian, 2018). Causality (cause and effect) is a relationship or process between two or more events or circumstances of an event, in which one factor causes another factor. If you take one simple example: if the light switch is raised, the light is on. We can say that a causal relationship
exists between the two events, namely raising the light switch causing the light to turn on (Ahmad Sofian, 2018). When someone asks someone else if they can borrow a knife to cut bread, "cutting" indicates that it causes a cut to occur in bread with a knife. When someone says that he lifts his daughter high into the air to make him laugh even harder, "lifting" suggests that he causes the baby to rise higher than before. The word "break" as in the case of breaking one's arm or leg is causing the bones of one's hand or leg to break, and so on (Ahmad Sofian, 2018). The concept of causality is fundamental in scientific reasoning. Indeed the concept of cause and effect exists in every branch of theoretical science: physics, biology, behavioral and social science, and in practical disciplines: architecture, ecology, engineering, law, anthropology, and medicine. Causality is always a very important topic in the history of philosophy. This may be because causality encompasses the way we think about ourselves, about our environment, about the whole universe in which we live and our relationship with nature itself. In fact, one can even say that our awareness of the world and our representation in the world at all times depends on a cause and effect relationship. Discovering all these relationships between cause and effect gives us insight into the structure of causality in nature, and forms our basis for learning intelligent behavior in the world. Finding out what really is a cause allows us to build a causal pattern and this allows for rational prediction, decision making and action in this world. The doctrine of causality is interpreted as a certain state of a particular phenomenon, because there is an element of generalization in each of these statements. The doctrine of causality is expressed as a certain condition which is always accompanied by certain symptoms anytime and anywhere. The doctrine of causality is not a purely logical or deductive relationship, it cannot be found empirically, based on experience. Experience is a special situation, particular symptoms and sequences (sequences of events) of things that are particular. A person can observe several events from a certain type of situation and each event observed can be accompanied by an event in the form of a certain type of symptom (B. Arief shidarta, 2008). In the Black's Law Dictionary, three terms are often mentioned about causality, namely cause, causation, and causality. Cause is defined as something that results in an effect or result (the cause of the accident), for example (Ahmad Sofian, 2018): "It has been said that an act which in no way contributed to the result in question cannot be a cause of it; but this, of course, does not mean an event which might have happened in the same way even though the defendant's act or omission had not occurred, is not a result of it. The question is not what would have happened, but what did happen" Joseph H. Beale. The Proximate Consequences of an Act, 33 Harv. L. Rev. 633, 638 (1920)." While causality is defined as the principle of causal relationship; the relation between cause and effect. Causal itself is defined as relating or involving causation exemplified by "a causal link exists between the defendant's action and the plaintiff's injury". The latter understanding causation as the cause or producing of an effect (the plaintiff prove causation) (Ahmad Sofian, 2018). Causality relationships are always found in every event or event in human life as social beings. However, this diversity of causality relationships sometimes leads to uncertain problems, this is because it is not easy to determine which causes and which results, especially if the discovery of a very long chain of causes. According to John Stuart Mill, in his book System of Logic, because (causa) is the whole antecedents that give birth to a new state. Negative conditions and positive conditions (which must be met in order for a particular situation to occur) give birth to a new state. He said that the total sum of the positive and negative conditions was taken together. So, for example there are a number of positive conditions but the number and intensity of negative conditions are bigger and stronger (the number of factors that hinder the occurrence of a greater effect and the intensity of these factors is stronger), then of course the corresponding effect does not occur (E. Utrech, 1994) An event that occurs always preceded by a series of actions (actions) that end with the realization of the event. Likewise, a criminal offense, in which a series of actions that cause (causa) the realization of a crime, is the focus of the teachings of causality. Satoshi said, that each effect can in fact be caused by several problems which are related to one another, so that the results are usually not caused by an act alone, but the effect can be caused by several actions which constitute a series which can be considered as a cause (causa) (Satochid Kartanegara). In the science of criminal law, the teachings of causality are used to determine which actions of a series of actions are seen as causes of the emergence of prohibited effects. Jan Rammelink, said that what became the focus of the attention of criminal law jurispruders was what meaning could be attached to the notion of causality so that they could answer the question of who could be held responsible for a certain effect. In this case, besides the point of view of lawmakers, propriety and propriety will play an important role (Ahmad Sofian, 2018). Lamintang disputes the teachings of this causality, especially relating to how far an action can be seen as the cause of a situation or to what extent an action can be seen as the cause of a situation or to what extent a condition can be seen as a result of an action, and the extent to which someone who has committed the action can be held accountable according to criminal law (P.A.F. Lamintang). Disputes often occur between jurists in determining the cause of an action, and determining who is responsible for the emergence of the prohibited effect. This disagreement is caused by differences in perspective in determining the actions that are the cause and in determining the degree of criminal liability (Jeremy Horder, 2002). To reduce the dispute. then before determining criminal liability, the first step to take is to construct a causal relationship for each case. In determining this causal relationship one must look for the most relevant actions which produce prohibited consequences (Jeremy Horder, 2002). The teachings that discuss the cause and the effect, that is, if a factor can be considered as a cause of an effect, are actually new teachings in the science of criminal law. Therefore, up to the 19th century, both experts and criminal law themselves still limited the discussion of the relationship between a cause and an effect only to a problem, namely to the offense that resulted in death (P.A.F. Lamintang). The doctrine of causality has a close relationship with an action aimed at ending human life or the cause that causes one's death. One of the criminal acts that cause death which causes complexity in determining the causal relationship is the crime of murder. The crime of murder is part of a material crime (materieelict). The crime of murder can be interpreted as a crime of taking the lives of others. In taking another person's life, an offender must do something or a series of actions that result in leaving someone else with the note that the turnover of the culprit must be aimed at the
consequences of the death of that other person (P.A.F. Lamintang, et al, 2010). According to Simons, opzet is an awareness of an actor about the possibility of a result other than the actual effect he wants, and that awareness has not caused him to cancel his intention to take actions prohibited by law (P.A.F. Lamintang, et al, 2010). Crimes that result in death are formulated as crimes against lives which consist of murder and ill-treatment offenses that cause death. The crime of murder is divided into two types, namely doods slag and moord. Doods slag is the crime of taking the lives of others intentionally, while the moord is eliminating the lives of others by premeditation. In addition, there are five other types of murder committed under the Criminal Code, namely the crime of taking the life of a child newly born by his own mother, a crime in the form of intentionally eliminating the lives of others at his own request, a crime in the form of intentionally encouraging others from committing suicide, or helping others kill themselves, and finally crime in the form of intentionally aborting a woman's womb or causing a child in the womb to die (P.A.F. Lamintang, et al, 2010). For this reason, post-mortem (forensic autopsy) is carried out to uncover clearly the cause of death (Cause Of Death) of the victim so that in providing conclusions the relationship of an actor's actions as a cause with the victim as a result can be easily carried out by the investigator. The judge, thus eliminating the notion that death due to poisoning was caused by mysticism. In the mid-19th century, the first time chemistry, microscopy, and photography were used in the investigation of criminal cases (W.G Eckert, 1980). This revolution is a picture of the responsibility of investigators in law enforcement (C.S.T. Kansil, 1991) Alphonse Bertillon was the first scientist to systematically examine the size of the human body as a parameter in personal identification. Until the early 1900s, Bertillon's method was very effective in personal identification. Bertillon is known as the father of criminal identification (P.D. Anderson, 2000) Francis Galton first examined fingerprints and developed a classification method of fingerprints. The results of his research are now used as a basic method in personal identification. Leone Lattes is a professor at the institute of forensic medicine at the University of Turin, Italy. In investigating and identifying a dried bloodstain, Lattes classified blood into 4 classifications, namely A, B, AB, and O (P.D. Anderson, 2000). The basis of this classification is still known to us and is widely used today. In subsequent developments more and more fields of science were involved or utilized in the investigation of a criminal case for the benefit of law and justice. This knowledge is often known as Forensic Science. Saferstein in his book Criminalistics an Introduction to Forensic Science argues that forensic science in general is the application of science to law (R. Saferstein. 1995) Forensics is usually always associated with criminal acts (acts against the law). In forensic science books in general, forensic science is defined as the application and use of certain knowledge in the interests of law enforcement and justice. In investigating a crime case, observation of physical evidence and interpretation of the results of the analysis (testing) of evidence is the main tool in the investigation (Cut Khaireunnisa, 2014) Forensic Medicine is one of the specialized branches of medicine that studies the use of medical science for the sake of law enforcement and justice (Budianto A, et al, 1997). In the past people were more familiar with forensic services with pathological services, namely forensic services for victims who died. In assisting the judicial process in order to explain a criminal case, a doctor also has an obligation that is no less important than humanitarian duties. The victim is adequate, the defendant needs to be rewarded with receiving the appropriate punishment (in accordance with the proven crime), while the innocent person must be protected from the punishment he should not have received (Rumancay S, et al, 2016) Forensic science is categorized into natural science and is built based on natural science methods. In the view of natural science something is considered scientific only and only if it is based on facts or experience (empiricism), scientific truth must be proven by everyone through his senses (positivism), analysis and results can be poured in a reasonable manner, both deductive and inductive in structure. Certain languages that have meaning (logic) and their results can be communicated to the wider community without being easily or without being shaken (critics of science) (Budianto A, et al, 1997). In scientific proof and examination, we are familiar with the terms forensic science and criminology. In general, forensic science can be interpreted as the application or use of certain knowledge for the sake of law enforcement and justice. The existence of scientific proof is expected by the police, prosecutors, and judges not to rely on the recognition of suspects or living witnesses in investigating and resolving a case. Because living witnesses can lie or are told to lie, then based solely on the witness's statement, it cannot guarantee the achievement of the objective of establishing the truth in the criminal proceedings (Cut Khaireunnisa, 2014). A post-mortem (forensic autopsy) is actually needed to find out and determine the exact cause of death of the victim, which leads to the goal of finding material truth or true truth in the examination of criminal cases. The cause of death of a victim for a crime of murder will correlate with criminal liability and sanctions. The crime of murder as a prohibited material offense is the result of an act, namely the loss of another person's life. The causal relationship between the actions of the perpetrators and the consequences caused according to medical science should be proven through a post-mortem examination (forensic autopsy) (Y. A. Triana Ohoiwutun, 2016). The contribution of Forensic Medicine in assisting the completion of the investigation process of criminal cases involving human lives, is poured in the form of Visum Et Repertum (Idris AM. Et al, 2011). Visum Et Repertum is a substitute for evidence in article 184 of the Criminal Procedure Code (KUHAP) classified as documentary evidence (Sapardja SE, 2016) This Visum Et Repertum can only be made if the police (investigators) directly submit a Letter of Request for Visum Et Repertum, as mentioned in article 133 of the Criminal Procedure Code (1) In the case of investigators for the benefit of the judiciary handling a victim whether injured, poisoned or dead suspected because the event is a criminal offense, he has the authority to submit a request for information from a judicial medical expert or doctor or other expert. (2) Requests for expert statements as referred to in paragraph (1) shall be made in writing, which in the letter is explicitly stated for examination of wounds or examinations of corpses and / or post-mortem examinations (Soerodobrotos S, 2002)

4. CONCLUSION

By carrying out an autopsy in a criminal investigation process, it can be seen who is The Cause of Death, the Mechanism of Death, the Manner of Death, and the Time of Death of a body or victims suspected of having died as a result of a crime. In the results of the examination a conclusion will be drawn

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containing the cause of death of the body or victim which will be used by the investigator as evidence whether it is a criminal offense or not a criminal offense. The product of the forensic expert’s examination is objective and scientific material evidence and is one of the evidences that is difficult for the defendant to refute later in court.

REFERENCES