



D11 State Sponsored Torture in Rome: A Forensic Inquiry and Medicolegal Analysis of the Crucifixion of Jesus Christ

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The goal of this presentation is to present to the members of the forensic community a forensic examination of the trauma involved in the crucifixion along with a medicolegal analysis of crucifixion focusing on the mechanisms and cause of death.

This presentation will impact the forensic community and/or humanity by describing the significance of the crucifixion process and how the physical effects of such a barbaric execution caused major medical distress in the human body.

The presentation will illustrate with medicolegal art and explanation the pathology, physiology, cardiology, anatomy, and forensic aspects of this event.

Crucifixion was a barbaric form of capital punishment practiced by the Romans, Persians, Phoenicians, Egyptians and others. The word crucifixion is derived from the word "*cruciare*" (to torture and torment). The Romans were well trained in every step of this technique. There were five soldiers assigned to each crucifixion. The team consisted of a centurion (*exactor mortis*), who was in charge of four soldiers called the *quaternio*.

This presentation is based on the research and text entitled, *The Crucifixion of Jesus: A Forensic Inquiry* by the eminent forensic pathologist and forensic scientist Dr. Frederick T. Zugibe, MD, PhD whose study touched on the entire range of scientific and medical background involved in various areas of forensic pathology and human anatomy as it relates to the crucifixion.

The presentation will start with events as they unfolded in the Garden of Gethsemane and introduce the audience to the term "hematidrosis" (The sweating of blood). This medical condition as defined in Stedman's Medical Dictionary is an excretion of blood or blood pigments in the sweat. Hematidrosis is associated with a severe anxiety reaction triggered by fear. Reportedly, Jesus was able to envision the entire gamut of suffering to come. This prelude produced the all of the medical criteria to initiate the sympathetic autonomic response as well as the severe counter parasympathetic response causing severe dilation and rupture of the blood vessels into the sweat glands.

The presentation will then focus on the scourging and the use of the flagrum in this barbaric method of torture prior to the crucifixion. The physical effects of the scourging on Jesus will be presented along with a discussion on hypovolemic shock.

Illustrations will be presented through medicolegal art the crowning of thorns and how these thorns caused Jesus to suffer trigeminal neuralgia one of the worst pains that humans can suffer.

Torture was the prelude to crucifixion. The nailing of both the hands and feet were the rule. Jesus, who was already weak from the hematidrosis and hypovolemic shock as well as the lancinating pains from the crown of thorns, was forced to carry his own cross. This exhaustion was accompanied by shortness of breath, pleural fluid accumulating within His lungs with possible pneumothorax due to the scourging. The intense heat and weight of the cross piece caused Him to fall. The *exactor mortis* could not allow Jesus to die before crucifixion so Simon of Cyrene was designated to carry the patibulum for Jesus.

This presentation will be instructive and informative to the forensic community and will dispel some of the myths of the crucifixion as depicted in the media and popular movies. It will also present compelling evidence to support the actual cause and mechanism of death of Jesus Christ on the cross.

The impact of the presentation occurs when the audience understands the significance of the crucifixion process and how the physical effects of such a barbaric execution caused major medical distress in the human body. The medicolegal aspects of the crucifixion will be presented in lay terms augmented with specific illustrations to depict in exquisite detail the findings and determinations regarding the cause and mechanism of death.

Jesus was brought to the place of crucifixion and stripped of both His outer garment (a cloak) and His tunic beneath the coat. He was gasping for air as he clutched His chest with every breath...the result of the scourging. Every movement caused unbearable pain. Jesus was thrown to the ground and made to lie on his back with His shoulders and outstretched arms on the patibulum (cross piece). One of the executioners then laid across His chest and another across His legs to hold Him down so that a third cohort could nail His hands to the crosspiece. This caused excruciating pain in His chest and severe difficulty breathing causing him to scream out in agony.

A large spike like nail measuring about $4\frac{3}{4}$ was nailed through the palm of each hand just below the bulge at the base of the thumb and into the cross piece. The pains would have been brutal, like hot poker traversing the arms causing Jesus to arch His torso. Two of the *quaternio* grabbed the ends of the crosspiece while a third member grasped Jesus around the waist, getting Him to his feet backing Him up to the upright. Two of the *quaternio* lifted the crosspiece while two others lifted Jesus by the legs and inserted the crosspiece into a mortise on the top of the upright. His knees were then bent until his feet were flush to the cross.

His feet were then nailed into the cross. Jesus would likely have cried out in agony as each foot was nailed.

"They have pierced my hands and my feet, I can number all my bones." (Psalms 22:16-17)

Forensic Reconstruction



General Section – 2008

When one considers each phase of Jesus' suffering beginning at Gethsemane and ending at Calvary the forensic conclusion is that Jesus died of shock. Jesus had experienced hematidrosis prior to being viciously scourged and severely flogged, causing extensive damage to the lungs, ribs and body wall, thereby throwing Him into early shock manifested by extreme weakness, tremors, probable lung collapse, seizures and fainting. Add the mental anguish, the crowning of thorns, the carrying of the cross piece of the cross, and the crucifixion process and anyone with a background in forensic pathology or emergency medicine would wonder how Jesus lasted as long as He did.

There are various types of shock. Hypovolemic shock is shock marked by a significant fall in the blood volume due to hemorrhage or loss of body fluids. Traumatic shock (injury shock) results from a serious injury. The presence of pain alone from a traumatic event stimulates certain nervous mechanisms of the brain, resulting in a drop of blood pressure and a reduction of blood flow to the tissues. Jesus suffered severe blood and fluid losses as well as excruciating pain.

The scourging resulted in penetration of the skin with trauma to the nerves, muscles, rib fractures, dislocations, lacerations, infiltration of significant amounts of blood throughout the intercostal spaces and back and chest musculature, bruises, and alveolar rupture and possible collapse of a lung (pneumothorax). Over a short period of time, an inflammation of the sac of the heart termed pericarditis would have ensued manifested by stabbing pains in the chest.

The irritation of the trigeminal nerves of the scalp from the crown of thorns would have caused lancinating pains across the scalp and face. This would have added to the state of the traumatic shock from the scourging. The splinting of the chest wall and the causalgia from the nailing of the hands and feet also added to the traumatic shock.

As Jesus hung on the cross with the weight of His body pulling on the nails in the hands and feet there would have been episodes of agonizing pain every time He moved. These episodes and unrelenting pains in the chest wall from the scourging would have worsened the state of traumatic and hypovolemic shock. Increasing pleural effusion, pulmonary edema and excessive sweating was induced by the trauma as well as heat of the sun. As Jesus arched his body to relieve the cramps in his legs and arms He would have had to press His head with the crown of thorns against the upright and this would have reactivated the trigeminal neuralgia, which caused further shock and pain.

The Cause of Jesus' Death

According to Dr. Zugibe's exhaustive study: *The Cause of Death: Cardiac and respiratory arrest, due to hypovolemic and traumatic shock, due to crucifixion.*

Crucifixion, Hematidrosis, Hypovolemic Shock