

The Crucifixion of Jesus

The passion of Christ from a Medical Point of View
Delbert C. McCutchen, MSN RN NRAEMT

In the following pages I will discuss the physical aspects of the passion, or suffering of Jesus Christ. We will look at the following from Gethsemane, through his trial, scourging, and his path along the Via Dolorosa, to his last dying hours on the cross.

In working on this paper I realized that I had taken the crucifixion for granted and had grown callous of the horror that Christ endured. It seems all too often we say Jesus died on the cross but do not take the depth of that sacrifice and realize the suffering that was delivered unto him. As a medical person who has studied many different aspects of the medical field I realized no one ever lists Jesus' cause of death. The writers of the Gospels did not give these details which is probably because crucifixion was so common place. However, in the concise words of the Evangelist: "Pilate, having scourged Jesus, delivered him to be crucified and they crucified him."

The infinite spiritual suffering and mental anguish that God went through for man's atonement of sins I am not competent to discuss. However, the physiological and anatomical aspects of the suffering of Jesus we can examine in some detail. What did the body of Jesus of Nazareth actually endure during those hours of torture?

To answer this question I was led to first study the practice of crucifixion itself; that is the torture and execution of a person by fixation to a cross. Apparently the first known practice of crucifixion was by the Persians. Alexander and his generals brought it back to the Mediterranean world to Egypt and to Carthage. The Romans apparently learned the practice from the Carthaginians and rapidly developed a very high degree of efficiency and skill in carrying it out. There were many changes made in the crucifixion including the changes of the cross itself. One form is the traditional Latin cross we think of now which has a tall upright post with a cross-arm (or patibulum) attached two or three feet below the top. However, the common form of that day was the Tau cross (shaped like the letter T). In this cross the patibulum was placed in a notch at the top of the post. There is overwhelming evidence that this was the type of cross that was used in Jesus' crucifixion.

The upright post (stipes) were generally fixed in the ground at the sites of the execution and the condemned man was forced to carry the patibulum apparently weighing about 110 pounds, from the prison to the place of execution. Without any biblical or historical proof most painters have shown us the picture of Christ carrying the entire cross. Most of these same artists show that the nails were driven in the hands. But we know that nails placed there would strip out between the fingers when they support the weight of the human body. This misconception may have come from Jesus' own words to Thomas, "Observe my hands." Anatomists both modern and ancient have always considered the wrists as part of the hand. Nails driven through the small bones of the wrists would stay in place.

A titulus, or small sign, stating the victim's crime was usually carried at the front of the procession and later nailed to the cross above the head. This sign with its staff nailed to the top of the cross would have given it somewhat the characteristic form of the Latin cross.

The physical passion of Christ begins in Gethsemane. Of the many aspects of this initial suffering, I will only discuss the one of physiological interest; the bloody sweat. It seems odd that the only one of the group to mention this is St. Luke the physician. He says, "And being in agony, he prayed the longer. And his sweat became as drops of blood, trickling down upon the ground."

Every attempt imaginable has been used by modern scholars to explain away this occurrence, apparently under the mistaken impression that this just doesn't happen.

A great deal of time and effort can be saved by consulting the medical literature. Though very rare, the phenomenon of Hematidrosis, or bloody sweat, is well documented. Doctors feel that this may be part of the bodies "fight or flight" response. Under great emotional stress, tiny capillaries in the sweat glands can break, thus mixing blood with sweat. This process alone could have produced marked weakness and possible shock.

Next we will move quickly through the betrayal and arrest; I must stress again that important portions of the Passion story are missing from this account. This may be a frustration to you, but in order to adhere to my purpose of discussing only the purely physical aspects of the passion, this is necessary. After the arrest in the middle of the night, Jesus was brought before the Sanhedrin and Caiphas, the High Priest; it is here that the first physical trauma was inflicted. A soldier struck Jesus across the face for remaining silent when questioned by Caiphas. The palace guards then blindfolded him and mockingly taunted him to identify them as they each passed by, spat on him, and struck him in the face.

In the early morning, Jesus, battered and bruised, dehydrated and exhausted from a sleepless night is taken across Jerusalem to the Pratorium of the Fortress Antonia, the seat of government of the Procurator of Jews, Pontius Pilate. It was then, in response to the cries of the mob, that Pilate ordered Bar-Abbas released and condemned Jesus to scourging and crucifixion. There is much disagreement among authorities about scourging as a prelude to crucifixion. Most Roman writers from this period do not associate the two. Many scholars believe that Pilate originally ordered Jesus scourged as his full punishment and that the death sentence by crucifixion came only in response to the taunt by the mob that the Procurator was not properly defending Caesar against this pretender who claimed to be the King of the Jews.

Preparations for the scourging begins as the prisoner is stripped of his clothing and his hands tied to a post above his head. It is doubtful that the Romans made any attempt to follow the Jewish laws in this matter of scourging. The Jews had an ancient law prohibiting more than forty lashes. The Pharisees, always making sure that the law was strictly kept, insisting that only the thirty-nine lashes be given. This was due to the fear of miscounting and going over the forty lashes allowed by law. The Roman legionnaire steps forward with the leather thongs with two small balls of lead attached near the ends of each thong. The heavy whip is brought down with full force again and again across Jesus' shoulders, back and legs. At first the heavy thongs cut through the skin only. Then, as the flows continue, they cut deeper into the subcutaneous tissues, producing first an oozing of blood from the capillaries and veins of the skin, and finally spurting arterial bleeding from the vessels in the underlying muscles. The small balls of lead first produce large, deep bruises which are broken open by subsequent blows. Finally, the skin of the back is hanging in long ribbons and the entire area is an unrecognizable mass of torn, bleeding tissue. When it is determined by the centurion in charge that the prisoner is near death, the beating is finally stopped.

The half-fainting Jesus is then untied and allowed to fall to the stone pavement, wet with his own blood. The Roman soldiers see a great joke in this Jew claiming to be a king. They then throw a robe across his shoulders and place a stick in his hand for a scepter. They still need a crow to make their travesty complete. A small bundle of flexible branches covered with long thorns (commonly used for firewood) are plaited into the shape of a crown and this is pressed into his scalp. Again because the face and scalp are very vascular there is copious bleeding flowing from the puncture of the thorns on his head. Then the soldier begin mocking him and striking him across the face, the soldiers take the stick from his hand and strike him across the head, driving the thorns deeper into his scalp. Finally, they grow tired of their sadistic sport and the robe is torn from his back. The robe has already adhered to the clots of blood and serum in the wounds, and its removal, just simulates the careless removal of a surgical bandage and causes excruciating pain. Similar to him being whipped again and the wounds again begin to bleed.

Unlike the Jewish custom, the Romans return his garments and they are placed on the already re-opened wounds causing more pain. The heavy patibulum of the cross is tied across his shoulders, and the procession of the condemned Christ, two thieves and the execution detail of Roman soldiers headed by a centurion, begins its slow journey along the Via Dolorosa. In spite of his efforts to walk erect, the weight

(approx. 110 lbs) of the heavy wooden beam, together with the shock produced by the blood loss from the beatings is too much. He stumbles and falls. The rough wood of the beam gouges into the lacerated skin and muscles of the shoulders. He tries to rise, but human muscles have been pushed beyond their endurance. The centurion, anxious to get on with the crucifixion, selects a stalwart North African onlooker, Simon of Cyrene, to carry the cross. Jesus follows, still bleeding and suffering the cold clammy sweat of shock. The 650 yard journey from the fortress Antonia to Golgotha is finally completed. The prisoner is again stripped of his clothes except for a loin cloth which is allowed of Jews.

The crucifixion now begins. Jesus is offered wine mixed with Myrrh, a mild analgesic mixture. He refused to drink. Simon is ordered to place the patibulum on the ground and Jesus is quickly thrown backward with his shoulders against the wood. The legionnaire feels for the depression at the front of the wrist. He drives a heavy, square, wrought-iron nail through the wrist and deep into the wood. Quickly, he moves to the other side and repeats the action, being careful not to pull the arms too tightly, but to allow some flexion and movement. The patibulum is then lifted and placed at the top of the cross and the titulus reading "Jesus of Nazareth, King of the Jews" is nailed in place.

The left foot is pressed backward against the right foot, and with both feet extended, toes down, a nail is driven through the arch of each, leaving the knees moderately flexed. The victim is now crucified. As he slowly sags down with more weight in the nails in the wrists, excruciating, fiery pain shoots along the fingers and up the arms to explode in the brain; the nails in the wrists are putting pressure on the median nerves. As he pushes himself upward to avoid this stretching torment, he places his full weight on the nails through the nerves between the metatarsal bones of the feet.

At this point, another phenomenon occurs; as the arms fatigue, great waves of cramps sweep over the muscles, knotting them in deep, relentless, throbbing pain. The muscles in his legs would give out soon as well, cramping severely (think about doing squats over and over). With these cramps come the inability to push himself upward. The weight of his body is transferred to his wrists, arms and shoulders. Hanging by his arms, the pectoral muscles are paralyzed and the intercostal muscles are unable to act. Air can still be drawn into the lungs but because of the muscles being paralyzed the air cannot be exhaled. Jesus struggles to raise himself up in an effort to get even one short breath. Finally, carbon dioxide builds up in the lungs and in the blood stream as a result the cramps subside. This is called hypercapnia or hypercarbia and the results can be bluish skin, confusion and disorientation. The one side effect that helps temporarily is the numbness from lack of oxygen which is called hypoxia or hypo-ventilation. The lack of oxygen causes the brain to tell the heart to speed up to pump oxygen and tries to increase the respiratory rate. This would have caused his shoulders to be dislocated as he increasingly moved up and down about 8-12 inches. Shortly afterward the elbows and wrists would also become dislocated. Which would cause more pain pushing up and down on the cross and rubbing the already battered and lacerated flesh to bleed more. Undoubtedly this pleases the Romans and those watching. It is during this time that his heart rate would increase up to rates of 200 or more and during this time it would be difficult to get many words out. It is during this time that Jesus looks down on the soldiers who are throwing dice for his garments.

(Note - The represent pauses in how one would expect Jesus would be speaking to get the words out.)

Jesus says "Father....., forgive them..... for they.....know not.....what...they do."

Next Jesus says to the penitent thief on one of the other crosses, "Today....though shalt.....be with me....in Paradise."

The third time, looking down at the terrified, grief stricken, adolescent John (the beloved apostle), he said; "Behold thy mother," and looking to Mary, his mother, "Woman....behold.....thy son,"

The fourth cry is from the beginning of Psalms 22, "My God...My God,....why hast thou.....forsaken me?"

Hours of this limitless pain, cycles of twisting, joint wrenching cramps. His periods of asphyxia (lack of oxygen), searing pain as the tissue continues to tear from his lacerated back as he continues to move up and down against the rough timber of the stripe. Then another agony begins. Jesus begins to feel a deep crushing pain in the chest as the pericardium (sac around the heart) begins to slowly fill with serum (protein rich liquid as blood products separate). As this sac begins to fill it puts pressure on the heart, this is called pericardial tamponade. His lungs also would begin to fill up with fluid as well because of the heart failing and the blood products separating. Jesus completely dehydrated, hypovolemic (loss of blood), the blood left is coagulating (getting thicker); this would make the formation of clots in the bloodstream occur easier.

Looking back again at the 22nd Psalms verse 14; “I am poured out like water, and all my bones are out of joint; my heart is like wax; it is melted in the midst of my bowels.”

Now the deed is almost done; the loss of fluids have reached critical levels - the compression on the heart (pericardial tamponade) makes the heart struggle to pump at all the heavy, thick, sluggish blood into the tissues. The tortured lungs are making a frantic effort to gasp in small gulps of air (I can almost hear the agonal type breathing also called guppy breathing). The combination of all these things happening at once sends a flood of messages to the brain.

Jesus gasps his fifth cry, “I thirst”

Let’s look back at Psalms 22 and remember another verse; “My strength is dried up like a potsherd (fragment of clay pottery); and my tongue cleaveth to my jaws; and thou has brought me into the dust of death.”

A sponge is soaked in Posea, the cheap, sour wine which is the staple drink of a Roman legionaries, is lifted up to his lips. He apparently doesn’t take any liquid. The body of Jesus is now fully exhausted and the mind is telling him the end is near. He can feel the chill of death creeping through his body. This realization brings out his final words, which may have come out as a mere whisper.

“It is finished.”

With one last surge, this must have taken every final effort Jesus could muster and with all of his strength that is left he once again presses his torn feet against the nail, straightening his legs, takes a deeper breath, and utters his seventh and last cry. “Father...into thy... hands I....commit my...spirit.”

The rest you already know. In order that the Sabbath not be profaned, the Jews ask that the condemned be dispatched and removed from the crosses. The Jews had to ask this question because the Romans had found a way to extend the suffering on a cross if they wanted to do so. They would nail a platform to allow the breathing to be easier or they could bring a quick end to the suffering by crucifraction. That is the breaking of both legs to prevent the condemned from pushing up and allowing for respirations thus bringing a quick end and suffocating death. The legs of the two thief’s who were crucified with Jesus were broken but when they came to Christ they saw this was unnecessary as he had already stopped breathing.

Apparently to make double sure of death the legionnaires would drive a spear through the fifth intercostal space (area between the 5th and 6th ribs) on the left side up between the ribs into the pericardium (sac around the heart) and into the heart itself. John 19:34 “but one of the soldiers pierced his side, and forthwith came there out blood and water.” This shows that the watery fluid from the sac surrounding the heart and blood from the interior of the heart. From this we know that from the accounts; our post-mortem evidence that Jesus died from heart failure due to shock and constriction of the heart by fluid in the pericardium rather than the normal suffocation from crucifixion. Some doctors and scholars suggest Christ died from fractured shoulders and various other issues. However, in my opinion and the research it

makes more sense that the progression of the events and the increasing heart rate and resulting shock from the blood loss would create this scenario.

Therefore we have seen a glimpse of the evil which man can exhibit toward man and toward God. This is not a pretty sight and is likely to leave the reader depressed. How grateful we can be that we have a sequel: A glimpse of the infinite mercy of God toward man - the miracle of atonement. God only asks that we Hear, Believe, Repent, Confess, Baptism and Obedience for a promise of Eternal Life. We should think upon this great sacrifice daily that Christ suffered so for our redemption.

Delbert C. McCutchen, MSN, RN, NRAEMT
Simply a Christian (Brother in Christ)