

THE CRUCIFIXION FROM A MEDICAL POINT OF VIEW

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I shall discuss some of the physical aspects of the passion, or suffering of Jesus Christ. We shall follow Him from Gethsemane, through His trial, His scourging, His path along the Via Dolorosa, to His last dying hours on the cross.

I suddenly realized that I had taken the crucifixion more or less for granted all these years. I had grown callous to its horror by a too easy familiarity with the grim details, and a too distant friendship with Him. It finally occurred to me that as a physician I didn't even know the actual immediate cause of death. The Gospel writers don't help us very much on this point, because crucifixion and scourging were so common during their lifetime that they undoubtedly considered a detailed description totally superfluous. So, we have the concise words of the evangelists, "Pilate, having scourged Jesus, delivered Him to them to be crucified...and they crucified Him"

The infinite psychic and spiritual suffering of the incarnate God in atonement for the sins of fallen man, I have no competence to discuss; however, the physiological and anatomical aspects of our Lord's passion, we can examine in some detail. What did the body of Jesus of Nazareth actually endure during those hours of torture?

This led me first to a study of 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 (as with almost everything the Romans did) rapidly developed a very high degree of efficiency and skill in carrying it out.) A number of Roman authors, *Livy*, *Cicero*, *Tacitus*, comment on it. Several innovations and modifications are described in the ancient literature; I'll mention only a few which may have some bearing here. The upright position of the cross, *or stipes*, could have the cross-arm, *or patibulum*, attached two or three feet below its top. This is what we commonly think of today as the classical form of the cross (the one which later was known as the Latin cross - *our t*). In this cross the Patibulum or cross-arm was placed in a notch at the top of the stipes. There is fairly overwhelming archeological evidence that it was on this type of cross that Jesus was crucified.

The upright post, or stipes was generally permanently fixed in the ground at the site of 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 historical or biblical proof, medieval and Renaissance painters have given us our picture of Christ carrying the entire cross. Many of these painters and most of the sculptors of crucifixes today show that the nails were driven between the fingers when they support the weight of a human body. The misconception may have come about through a misunderstanding of Jesus' words to Thomas, "Observe my hands." Anatomists, both modern and ancient, have considered the wrist as a part of the hand.

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 of the Latin cross. The physical passion of the Christ begins in Gethsemane. Of the many aspects of this initial suffering, I shall only discuss the one of physiological interest; the bloody sweat. It is interesting that the physician of the group, Luke, is the only one to mention this. He says, "and being in agony, he prayed the longer. And His sweat became as drops of blood, trickling down upon the ground." Modern scholars have made every attempt imaginable to explain away this phrase, apparently under the mistaken impression that this just doesn't happen. Consulting the medical literature could have saved a great deal of effort. Though very rare, the phenomenon of Hematidrosis, or bloody sweat, is well documented. 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.

We shall move rapidly through the betrayal and arrest. I must stress again that important portions of the passion story are missing from this account. This may be frustrating to you, but in order to adhere to our 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 passed by. They spit 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 Praetorium of the Fortress Antonia, the seat of the government of the Procurator of Judea, Pontius Pilate. You are, of course, familiar with Pilate's action in attempting to pass responsibility to Herod Antipas, the Tetrarch of Judea. Jesus apparently suffered no physical mistreatment at the hands of Herod, and was returned to Pilate. It was then, in response to the cries of the mob, that Pilate ordered Barabbas released and condemned Jesus to scourging and crucifixion.

There was much disagreement among authorities on 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 are carried out. The prisoner is stripped of His clothing and his hands tied to a position above his head. It is doubtful whether the Romans made any attempt to follow the Jewish law in this matter of scourging. The Jews had an ancient law prohibiting more than forty lashes. The Pharisees, always making sure the law was strictly kept, insisted that only thirty-nine lashes be given. (In case of a miscount, they were sure of remaining within the law.) The Roman legionnaire steps forward with the leather thongs with two small balls of lead attached near the ends of each. 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 blows 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 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 mess of torn, bleeding tissue. When 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 slump to the stone pavement, wet with his own blood. The Roman soldiers saw a great joke in this provincial Jew claiming to be a King. They threw a robe across his shoulders and place a stick in his hand for a scepter. They still needed a crown 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 is pressed into his scalp. Again there is copious bleeding (the scalp being one of the most vascular areas of the body.) After 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 tired of their sadistic sport and the robe was torn from his back. This had already become adherent to the clots of blood and serum in the wounds, and its removal, as in the careless removal of a surgical bandage, caused excruciating pain. Almost as though He were again being whipped----and the wounds again began to bleed.

In deference to Jewish custom, the Romans returned His garments. 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, began the slow journey along the Via Dolorosa. In spite of his efforts to walk erect, the weight of the heavy wooden beam, together with the shock produced by copious blood loss, is too much. He stumbles and falls. The rough wood of the beam gouges into the lacerated skin and the muscles of the shoulders. He tries to rise, but His 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 as he followed was still bleeding and sweating 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 was allowed by the Jews.

The crucifixion 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 in place at the top of the stipes 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, and he slowly sags down with more 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. With these cramps comes the inability to push himself upward. Hanging by his arms the pectoral muscles are paralyzed and the intercostal muscles are unable to act. Air can be drawn into the lungs, but cannot be exhaled. Jesus fights to raise himself in order to get even one short breath. Finally, carbon dioxide builds up in the lungs and the blood stream and the cramps partially subside. Spasmodically, He is able to push Himself upward to exhale and bring in the life-giving oxygen.

It was undoubtedly during these periods that He uttered the several, short sentences, which are recorded. The first, looking down at the Roman soldiers throwing dice for His seamless garment, "Father, forgive them for they know not what they do." The second, to the penitent thief, "today you will be with me in paradise." The third, looking down at the terrified, grief stricken, adolescent John (the beloved Apostle), He said, "Behold your mother," and looking to Mary, His mother "Woman, thy son." At this point the whole earth is plunged into darkness as Jesus makes his fourth cry from the beginning of the 22nd Psalm, "My God, my God, why have you forsaken me?" The blackness of sin's darkness descends upon our Lord as he bears all of the sins of the world. It is here our Lord experiences the agonizing pain of separation from His Father because of sin for the first time in his existence.

Hours of this limitless pain, cycles of twisting, joint-rending cramps, intermittent partial asphyxiation, searing pain as tissue is torn from His lacerated back as he moves up and down against the rough timber. Then another agony begins, a deep crushing pain in his chest as the pericardium slowly fills with serum and begins to compress the heart. It was at this time that our Lord cries out, "Father, into your hands I commit my spirit." As Jesus' spirit left his lacerated body, the

guards noticed that his body slumped, and the earth began to quake violently at the death of the Son of God. The earth shook and the rocks split as the veil of the temple was torn in two from top to bottom, and many of the nearby tombs opened. The centurion and those who were watching were terrified when they saw what was happening and exclaimed, "Surely He was the Son of God!" *Later a guard pierced Jesus' side with his sword through the chest cavity releasing the serum around the heart, the clotted blood and the clearer serum poured from the wound-positive proof that Jesus was dead.*