The Passion of Christ from a Medical Point of View
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In this paper, 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 became interested in this about a year ago when I read an account of the crucifixion in Jim Bishop's book, "The Day Christ Died." I suddenly realized that I had taken the crucifixion more or less for granted all these years - that 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."

I am indebted to many who have studied this subject in the past and especially to a contemporary colleague, Dr. Pierre Barbet, a French surgeon who has done exhaustive historical and experimental research and has written extensively on the subject.

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, Cicerl, Tacitys) 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 portion 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 we have later named the Latin cross); However, the common form used in our Lord's day was the Tau cross (shaped like the Greek letter Tau or like our letter T). In this cross the patibulum 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 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 the nails through the palms. Roman historical accounts and experimental work have shown that the nails were driven between the small bones of the wrist and not through the palms. Nails driven through the palms will strip out between the fingers when they support the weight of a human body. The misconception may have come through a misunderstanding of Jesus' words to Thomas, "Behold My hands." Anatomists, both modern and ancient, have always considered the wrist as 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 form 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." Luke 22:44

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

A great deal of effort could be saved by consulting the medical literature. 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 the 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 Caiaphas, 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 Caiaphas. 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 early morning Jesus, battered and bruised, dehydrated, and exhausted from a sleepless night, is taken across Jerusalem to the Praetorium 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 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 the 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 post 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 that 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 flagrum (or flagellum) in his hand. This is a short whip consisting of several heavy, 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 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 slump to the stone pavement, wet with His own blood. The Roman soldiers see a great joke in the provincial Jew claiming to be a King. They throw a robe across His shoulders and place a stick in His hand for a scepter. They still need 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 this 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 tire of their sadistic sport and the robe is torn from His back. This had already become adherent to the clots of blood and serum in the wounds, and its removal, just as in the careless removal of a surgical bandage, causes excruciating pain.... almost as though He were again being whipped ---- and the wounds again begin to bleed.

In deference to Jewish custom, the Romans return 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; begin its 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 muscles of the shoulders. He tries to rise, but human muscles have been pushed beyond 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 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 lion cloth which is allowed the Jews.

The crucifixion begins. Jesus is offered wine mixed with Myrrh, a mild analgesic mixture. He refuses 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 into 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. As He slowly sags down with more weight on the nails in the wrist, excruciating, fiery pain shoots along the fingers and up the arms to explode in the brain--the nails in the wrist are putting pressure on the median nerves. As He pushes Himself upward to avoid this stretching torment, He places His full weight on the nail through His feet. Again, there is the searing agony of the nail tearing 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 one short breath. Finally, carbon dioxide builds up in the lungs and in the blood stream and 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 seven short sentences which are recorded.

The first, looking down at the Roman soldiers casting lots for His garments, "Father, forgive them for they know not what they do." The second, to the penitent thief, "Today thou shalt be with me in Paradise."

The third, looking down at the terrified, grief-stricken, 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 the 22nd Psalm, "My God, My God, why hast Thou forsaken me?"

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 deep in the chest as the pericardium slowly fills with serum and begins to compress the heart. Let
us remember again the 22nd Psalm (the 14th verse). "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."

It is now almost over -- the loss of tissue fluids has reached a critical level -- the
compressed heart is struggling to pump heavy, thick sluggish blood into the tissues -- the
tortured lungs are making a frantic effort to gasp in small gulps of air. The markedly
dehydrated tissues send their flood of stimuli to the brain.

Jesus gasps His fifth cry, "I thirst,"

Let us remember another verse from the prophetic 22nd Psalm: "My strength is dried up
like a potsherd; and my tongue cleaveth to my jaws; and thou hast brought me into the
dust of death."

A sponge soaked in Posca, the cheap, sour wine which is the staple drink of the Roman
Legionnaires, is lifted to His lips. He apparently doesn't take any of the liquid. The body
of Jesus is now in extremis, and He can feel the chill of death creeping through His
tissues. This realization brings out His sixth words -- possibly little more than a tortured
whisper. "It is finished."

His mission of atonement has been completed. Finally He can allow His body to die.

With one last surge of strength, He once again presses His torn feet against the nail,
straightens His legs, takes a deeper breath, and utters His seventh and last cry, "Father,
into thy hands I commit my spirit."

The rest you know. In order that the Sabbath not be profaned, the Jews asked that the
condemned men be killed and removed promptly from the crosses. The common method
of ending a crucifixion was by crurefracture, the breaking of the bones of the legs. This
prevented the victim from pushing himself upward; the tension could not be relieved
from the muscles of the chest, and rapid suffocation occurred. The legs of the two thieves
were broken, but when they came to Jesus, they saw that this was unnecessary.

Apparently, to make doubly sure of death, the legionnaire drove his lance through the
fifth interspace between the ribs, upward through the pericardium and into the heart. The
34th verse of the 19th chapter of St. John: “And immediately there came out blood and
water.” Thus there was an escape of water fluid from the sac surrounding the heart and
blood from the interior of the heart. We, therefore, have the rather conclusive post-
mortem evidence that Our Lord died, not the usual crucifixion death by suffocation, but
of heart failure due to shock and constriction of the heart by fluid in the pericardium.

Thus we have seen a glimpse of the epitome of evil which man can exhibit toward men—
and toward God. This is not a pretty sight and is apt to leave us despondent and
depressed. How grateful we can be that we have a sequel: A glimpse of the infinite mercy
of God toward man--- the miracle of the atonement and expectation of Easter morning!