

**Medical Aspects of the Crucifixion of Jesus Christ (Part 2)****SUFFERING ON THE CROSS****Psalm 22:16-17:**

*Dogs have surrounded me; a band of evil men has encircled me, they have pierced my hands and my feet. I can count all my bones; people stare and gloat over me."*

The crucifixion event is prophesied in several places throughout the Old Testament. One of the most striking is recorded in Isaiah 52:13, where it says that, *"My servant will act wisely (or prosper). He will be raised and lifted up and greatly exalted."* In John 3, Jesus talks about His fulfillment of that prophecy when He says, *"Just as Moses lifted up the snake in the desert, so the Son of Man must be lifted up that everyone who believes in Him may have eternal life."* He refers to the events recorded in Numbers 21:6-9. The Lord had sent a plague of fiery serpents on the people of Israel and they bit the people so that many of the people died. After the people confessed their sin to Moses, the Lord forgave them by having a bronze serpent made. Bronze is a symbol for judgment and the serpent is a symbol of the curse. Whoever was bitten by a serpent and then looked at the bronze serpent, was saved from death.. These verses are prophecies that point to the crucifixion, in that Jesus would be (lifted up) on the cross for the judgment of sin, so that whoever believed in Him should not die (an eternal death), but live an eternal life. 2 Corinthians 5:21 amplifies this point, in that *"He (the Father) made Him who knew no sin (the Son) to be sin on our behalf, so that we might become the righteousness of God in Him"* (Pink). It is interesting that the sign of Aesculapius which is the symbol of the medical profession today, had its roots from the making of the bronze serpent (Metherall). Indeed, Jesus is the healer of all! Jesus is led to the place of the skull (Latin: Calvary; Aramaic: Golgotha) to be crucified. The actual location of Calvary is also in dispute. At the end of the Via Dolorosa, there is a *"T intersection"*. If one turns left, we go to the Church of the Holy Sepulcher. If one turns to the right, one goes to Gordon's Calvary. The Church of the Holy Sepulcher has long been believed to be the traditional site of the crucifixion.

Gordon's Calvary has a possible prophetic reason for being the actual site of the crucifixion. In Genesis 22, Abraham is tested by God to sacrifice Isaac on the top of a mountain. Realizing that he is acting out a prophecy, that *"God Himself will provide a Lamb"*, Abraham calls the place of the event *"Jehovah Jireh"*, meaning *"In the mount of the Lord it shall be seen."* If we take this as a prophetic event of Jesus'

death, then Jesus' died on the high ground of Jerusalem. Gordon's Calvary is the highest point of Jerusalem, 777 meters above sea level (Missler: Map from Israel tour book). Today, at Gordon's Calvary, caves in the rock are situated which give the site the appearance of a skull.

Jesus was then crucified. Crucifixion was a practice that originated with the Persians and was later passed on to the Carthaginians and the Phoenicians. The Romans perfected it as a method of execution which caused maximal pain and suffering over a period of time. Those crucified included slaves, provincials and the lowest types of criminals. Roman citizens, except perhaps for soldiers who deserted, were not subjected to this treatment (McDowell).

The crucifixion site *"was purposely chosen to be outside the city walls because the Law forbade such within the city walls...for sanitary reasons ... the crucified body was sometimes left to rot on the cross and serve as a disgrace, a convincing warning and deterrent to passers by."* (Johnson) Sometimes, the subject was eaten while alive and still on the cross by wild beasts (Lipsius).

The procedure of crucifixion may be summarized as follows. The patibulum was put on the ground and the victim laid upon it. Nails, about 7 inches long and with a diameter of 1 cm (roughly 3/8 of an inch) were driven in the wrists. The points would go into the vicinity of the median nerve, causing shocks of pain to radiate through the arms. It was possible to place the nails between the bones so that no fractures (or broken bones) occurred. Studies have shown that nails were probably driven through the small bones of the wrist, since nails in the palms of the hand would not support the weight of a body. In ancient terminology, the wrist was considered to be part of the hand. (Davis) Standing at the crucifixion sites would be upright posts, called stipes, standing about 7 feet high (Edwards). In the center of the stipes was a crude seat, called a sedile or sedulum, which served a support for the victim. The patibulum was then lifted on to the stipes. The feet were then nailed to the stipes. To allow for this, the knees had to be bent and rotated laterally, being left in a very uncomfortable position. The titulus was hung above the victim's head.

There were several different types of crosses used during crucifixion. In Jesus' time, it was most likely that the cross used was a T shaped (or tau cross,), not the popular Latin, or t shaped cross which is accepted today (Lumpkin).

## **PHYSICAL SUFFERING ON THE CROSS**

### **Psalm 22:14-15:**

*"I am poured out like water, and all my bones are out of joint. My heart has turned to wax; it has melted away within me. My strength is dried up like a potsherd, and my tongue sticks to the roof of my mouth; you lay me in the dust of death."*

Having suffered from the beatings and flogging, Jesus suffered from severe hypovolemia from the loss of blood. The verses above describe His dehydrated state and loss of His strength.

When the cross was erected upright, there was tremendous strain put on the wrists, arms and shoulders, resulting in a dislocation of the shoulder and elbow joints (Metherall). The arms, being held up and outward, held the rib cage in a fixed end inspiratory position which made it extremely difficult to exhale, and impossible to take a full breath. The victim would only be able to take very shallow breaths. (This may explain why Jesus made very short statements while on the cross). As time passed, the muscles, from the loss of blood, lack of oxygen and the fixed position of the body, would undergo severe cramps and spasmodic contractions

### **ABANDONED BY GOD ? SPIRITUAL DEATH**

#### **Matthew 27:46:**

*"About the ninth hour Jesus cried out in a loud voice, "Eloi, Eloi, lama sabachthani?" which means, My God, my God, why have you forsaken me?"*

With the sin of the world upon Him, Jesus suffered spiritual death (separation from the Father ). Isaiah 59:2 says that sins cause a separation from God, and that He hides His face from you so that He does not hear. The Father must turn away from His Beloved Son on the cross. For the first time, Jesus does not address God as His Father (Courson).

### **DEATH BY CRUCIFIXION : SLOW SUFFOCATION**

1. Shallowness of breathing causes small areas of lung collapse.
2. Decreased oxygen and increased carbon dioxide causes acidic conditions in the tissues.
3. Fluid builds up in the lungs. Makes situation in step 2 worse.
4. Heart is stressed and eventually fails.

The slow process of suffering and resulting death during a crucifixion may be summarized as follows:

*"...it appears likely that the mechanism of death in crucifixion was suffocation. The chain of events which ultimately led to suffocation are as follows: With the weight of the body being supported by the sedulum, the arms were pulled upward. This caused the intercostal and pectoral muscles to be stretched. Furthermore, movement of these muscles was opposed by the weight of the body. With the muscles of respiration thus stretched, the respiratory bellows became relatively fixed. As dyspnea developed and pain in the wrists and arms increased, the victim was forced to raise the body off the sedulum, thereby transferring the weight of the body to the feet. Respirations became easier, but with the weight of the body being exerted on the feet, pain in the feet and legs mounted. When the pain became unbearable, the victim again slumped down on the sedulum with the weight of the body pulling on the wrists and again stretching the intercostal muscles. Thus, the victim alternated between lifting his body off the sedulum in order to breathe and slumping down on the sedulum to relieve pain in the feet. Eventually, he became exhausted or lapsed into unconsciousness so that he could no longer lift his body off the sedulum. In this position, with the respiratory muscles essentially paralyzed, the victim suffocated and died. (DePasquale and Burch)* Due to the shallow breathing, the victim's lungs begin to collapse in small areas causing hypoxia and hypercarbia. A respiratory acidosis, with lack of compensation by the kidneys due to the loss of blood from the numerous beatings, resulted in an increased strain on the heart, which beats faster to compensate. Fluid builds up in the lungs. Under the stress of hypoxia and acidosis the heart eventually fails. There are several different theories on the actual cause of death. One theory states that there was a filling of the pericardium with fluid, which put a fatal strain on the ability of the heart to pump blood (Lumpkin). Another theory states that Jesus died of cardiac rupture" (Bergsma). Another says the cause of Jesus' death *"may have been multifactorial and related primarily to hypovolemic shock, exhaustion asphyxia and perhaps acute heart failure"* (Edwards). A fatal cardiac arrhythmia may have caused the final terminal event (Johnson, Edwards).

These are all medical theories and don't take into account Scriptures which give us a clear statement of how Jesus died. For the actual cause of Jesus' death see below.

## A LAST DRINK OF WINE VINEGAR

**John 19:29-30:** "A jar of **wine vinegar** was there, so they soaked a sponge in it, put the sponge on a stalk of the hyssop plant, and lifted it to Jesus' lips." When he had received the drink, Jesus said, **?It is finished'**. "With that, he bowed his head and gave up his spirit."

Having suffered severe blood losses from His numerous beatings and thus in a dehydrated state, Jesus, in one of His final statements, said *"I thirst."* He was offered 2 drinks on the cross. The first, which He refused, was a drugged wine (mixed with myrrh). He chose to face death without a clouded mind.

Edersheim writes: *"It was a merciful Jewish practice to give to those led to execution a draught of strong wine mixed with myrrh so as to deaden consciousness"* (Mass Sem 2.9; Bemid. R. 10). This charitable office was performed at the cost of, if not by, an association of women in Jerusalem (Sanh. 43a). The draught was offered to Jesus when He reached Golgotha. But having tasted it....He would not drink it. ....He would meet Death, even in his sternest and fiercest mood, and conquer by submitting to the full....(p.880).

The second drink, which He accepts moments before His death, is described as a wine vinegar. Two points are important to note. The drink was given on the *"stalk of a hyssop plant"*. Remember that these events occurred at the Feast of the Passover. During this feast, (Exodus 12:22) hyssop was used to apply the blood of the Passover lamb to the wooden doorposts of the Jews. It is interesting the end of this hyssop stalk pointed to the blood of the Perfect Lamb which was applied to the wooden cross for the salvation of all mankind. (Barclay) In addition, the wine vinegar is a product of fermentation, which is made from grape juice and yeast. The word literally means *"that which is soured"* and is related to the Hebrew term for *"that which is leavened"* (Holmans). Yeast or leaven, is a Biblical symbol of sin. When Jesus took this drink, (i.e. a drink which was *"leavened"*) it is thus symbolic of His taking the sins of the world into His body.

## CELEBRATION OF THE OPPOSITION SPIRITUAL WARFARE

**Psalms 22:12-13:** *"Many bulls surround me; strong bulls of Bashan encircle me. Roaring lions tearing their prey open their mouths wide against me."*

While He was on the cross, darkness covered the land (noon to three p.m.). Jesus,

in Luke 22:53, associates those who arrested Him with the power of darkness. Where were the evil forces while Jesus was on the cross? The verses above from Psalm 22 seem out of place when first read. There seems to be no mention of "bulls" and "lions" around the cross. The verses, however, have a deeper meaning (Courson). Bashan was an area to the east of the Jordan River which was famous for its fertility. Cattle were raised there which grew to enormous sizes. The people there worshipped demon spirits (associated with Baal) within the cattle. In 1 Peter 5:8, Satan is described as "a roaring lion...seeking those who he may devour" These verses are thus suggestive of the spiritual activity of Satan and his demons, celebrating as Jesus was suffering on the cross.

## JESUS LAID DOWN HIS LIFE

John 10:17-18: *"The reason my Father loves me is that I lay down my life?only to take it up again. No one takes it from me, but I lay it down on my own accord. I have authority to lay it down and authority to take it up again. This command I received from my Father."*

Luke 23:46: *"Jesus called out with a loud voice, ?Father, into your hands I commit my spirit'." When he had said this, he breathed his last.*

The average time of suffering before death by crucifixion is stated to be about 2-4 days (Tenney). There are even reported cases where the victims lived for 9 days (Lipsius). Jesus died a relatively quick physical death. In fact, Pilate was surprised that He had died so soon (Mark 15:44). While many of the physical signs preceding death were present, Jesus did not die from physical causes.

Jesus **gave up His life of His own accord**. All of the final statements that Jesus makes on the cross leave one with the impression that Jesus chose His time to die. His last statement, *"Into your hands I commit my Spirit"* shows that Jesus' death occurred by giving Himself up. John's gospel records Jesus' death in this way: *"With that He bowed His head and gave up His spirit"* (John 19:30b). Matthew writes: *"And when Jesus had cried out again in a loud voice, He gave up His spirit"* (Matthew 27:50).

Earlier in Jesus' ministry, Jesus made it clear that only He has the power to lay down His life (John 10:17-18). He proved His power over death by His resurrection. Jesus gave up His life of His own accord.

## **DEATH BY CRUCIFIXION:**

**HASTENED** by the breaking of the legs, so that the victim could not push up to take a good breath.

**John 19:32-33:** *The soldiers therefore came and broke the legs of the first man who had been crucified with Jesus, and then those of the other. But when they came to Jesus and found that he was already dead, they did not break his legs.*

**CONFIRMED** by a spear thrust into the right side of the heart.

**John 19:34:** *Instead, one of the soldiers pierced Jesus' side with a spear, bringing a sudden flow of blood and water.* Death in crucifixion was hastened by the breaking of the legs of the victim. This procedure, called crurifracture, prevented the ability of the victim to take in a good breath. Death would quickly occur from suffocation. In Jesus' case, He died quickly and did not have His legs broken. Jesus fulfills one of the prophetic requirements of the Passover Lamb, that not a bone shall be broken (Exodus 12:46, John 19:36).

To confirm that a victim was dead, the Romans inflicted a spear wound through the right side of the heart. When pierced, a sudden flow of blood and water came from Jesus' body. The medical significance of the blood and water has been a matter of debate. One theory states that Jesus died of a massive myocardial infarction, in which the heart ruptured (Bergsma) which may have resulted from His falling while carrying the cross (Ball). Another theory states that Jesus' heart was surrounded by fluid in the pericardium, which constricted the heart and caused death (Davis). The physical stresses of crucifixion may have produced a fatal cardiac arrhythmia (Johnson).

The stated order of "*blood and water*" may not necessarily indicate the order of appearance, but rather the relative prominence of each fluid. In this case, a spear through the right side of the heart would allow the pleural fluid (fluid built up in the lungs) to escape first, followed by a flow of blood from the wall of the right ventricle (Edwards). The important fact is that the medical evidence supports that Jesus did die a physical death.

The story, of course, does not end here. The greatest event that separates Jesus from all others is the fact that He rose again and lives today. He intercedes for those who follow Him at the right hand of the Father (Hebrews 7:25).

## APPEARANCE IN HEAVEN

**Revelation 5:6:** *Then I saw a Lamb, looking as if it had been slain*, standing in the center of the throne, encircled by the four living creatures and the elders.

In eternity, Jesus will bear the marks of His crucifixion. Revelation 5:6 suggests that He appears in heaven with the marks as a Lamb *"looking as if it had been slain."* We know that when He appeared to Thomas that He bore the scars of the nails and the spear in His side (John 20:26-28). It is also worth considering reasons as to why He was not immediately recognized after His resurrection. In John 21:12, it is stated that the disciples did *"not dare to ask Him His identity, because they knew that it was the Lord."* It is possible that His resurrection body still has the marks of His beatings. *"The body of His glorification will be the body of His humiliation"* (Missler).

Are we ready to meet Him? What have we done with what He has given to us? Today, He encourages us to consider the cost of the cross and to apply it to our own lives.

## FOLLOWING JESUS CHRIST

**Luke 9:23:** *Then he said to them all: "If anyone would come after me, he must deny himself and take up his cross daily and follow me."*

When He was on earth, Jesus stated that , *"If any man would come after me, let him take up his cross daily and follow me."* (Luke 9:23) As we have seen, in Jesus' time it meant going to your death, giving up and separating yourself from all that you had.....your rights, your friends, your body and blood and even your *"god"*, to follow Him.

We are challenged by the example of Simon of Cyrene. Scripture mentions Him as being the father of Alexander and Rufus (Mark 15:21). Rufus (*"a choice man in the Lord"*) and Simon's wife were both addressed by Paul in his letter to the Roman church (Romans 16:13). Here was a man, who indeed carried the cross...and made an impact for Christ in eternity. What commitment are you willing to make to Him now?

The Bible, God's Word (2 Timothy 3:16-17), relates how God once had a personal relationship with man. God would talk and relate to man, just as you might relate to

your best friend. God created man to give him a meaningful and purposeful life.

Man chose to go his own way by disobeying God. (This applies to all men as in Romans 3:23.) This disobedience, called sin, caused a break in the relationship between man and God. If a man casually seeks a relationship with God by his own efforts (religion), he will find nothing, because sin has broken the communication (Isaiah 59:2).

Christianity is the story of God sacrificing His Son to restore a relationship that was broken. As stated in the above text, Jesus gave up His life to pay for the sins of mankind and take the punishment for the sin upon Himself. On the cross a divine transaction took place. He received all of our sin. But there is a second part to the transaction. When we trust our lives to Jesus, we receive all of His righteousness (2 Corinthians 5:21). Because He gave His life on the cross, any one who believes in Him will have a restoration of a personal relationship with God. Jesus Himself claimed to be the only way to God (John 14:6) and only by the knowledge of God through Jesus Christ can man have a meaningful and purposeful life (John 10:10).

God desires that all men come to know Him in a personal way. If you have never received Jesus' gift of Himself for your sins , or have any doubts to how you can have a meaningful and purposeful life by the knowledge of God through Jesus Christ, you can start by praying a simple prayer, such as:

**Dear Lord Jesus. Thank you for dying on the cross for me. I confess that I am a sinner before God. I acknowledge that by your death and sacrifice that you have paid the penalty of my sins for me. Please come into my heart and become the Lord of my life. As you gave your life, I give my life to you. I will take up my cross and follow you, not as I will, but to follow Your perfect will for my life. In Jesus Name, Amen.**

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