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"[F]or many physicians, the only contact they will have with arguments for and against conspiracy will be through THE JOURNAL...many physicians need education in the pertinent forensic and ballistic sciences that pertain to the assassination...readers are directed to the studies by Lattimer..." Robert Artwohl, M.D., Journal of the American Medical Association. JAMA 1993;269:1544

JOHN LATTIMER'S TRAJECTORY

by Milicent Cranor

A line can accuse a man of murder. This report is about a line that may or may not connect John Kennedy's back to the sixth floor of the Texas Book Depository Building, to Lee Harvey Oswald, the presumed source of all shots. And it is about two wounds that may or may not connect with each other. Without these connections, we must conclude there was more than one gunman.

Two points make a line. The first point on the line in question, the back wound, can move up or down by four inches, depending on whom you believe. The second point, the throat wound, is fairly well established. No evidence whatsoever connects these two wounds.

Should articles in peer-reviewed medical journals on the ballistics of the Kennedy assassination leave out conflicting testimony on the location of the wounds and the depth of their penetration? Would you find this basic information in the papers of John Lattimer?

Hard sell in the absence of hard information is the approach of John Kinglsey Lattimer, M.D., Chairman of the Department of Urology at Columbia Presbyterian, New York City, who has been writing about the Kennedy assassination since 1964. Lattimer dabbled in three separate specialties, Radiology, Neurology and Endocrinology -- none of which is his own -- to establish a back wound at the level of the sixth cervical vertabra (C6) (neck). He never tells his readers the wound was documented to have been at the level of the third thoracic vertebra (T3) (back). Nor does he report the weaknesses of attempts to place the wound at a higher location.

BACKGROUND

Before examining the evolving locations of the back wound, it should be noted that the angle of the line with the horizon would change as Kennedy's posture changed. If

Kennedy had been leaning forward when shot in the back, the wound would have been lower than if he had been sitting straight up when shot. At the moment supporters of the official version say he was shot in the back -- frame 224 of the Zapruder film, the instant before Governor Connally's lapel bulge -- Kennedy is obscured by a freeway sign, except for his raised left arm. But in frame 225, only 1/18 of a second afterward, he is sitting straight up and could not have moved back into this position from a forward bent position so quickly. But Lattimer has frequently suggested Kennedy was leaning forward at the time. And it has to be at that time to fit the single bullet from the lone assassin theory. Otherwise, Connally's wounds were caused by a different bullet, fired too soon afterward, before the author of the first bullet had time to reload, aim, and fire.

According to the death certificate signed by the White House physician, Admiral George Burkley, M.D., Kennedy's back wound was at T3. The FBI and Secret Service agents and autopsy technicians who saw the body all said the wound was that low, if not lower. According to the Parkland Hospital doctors who tried to save the President, the wound in his throat was at the level of the second or third tracheal ring. Lattimer never gives these figures and has implied the throat wound was lower.[Resid Staff Phys 1972;18:34] A line connecting the throat and back wounds, as defined by the doctors who saw the wounds, would slant downward in the back, away from the sixth floor of the Depository Building.

How could Lattimer revise the record? The death certificate was buried for years and, although the doctors who performed the autopsy never contradicted Burkley, they went out of their way to avoid locating the wound in relation to the spine; instead, they placed it in relation to two distant reference points that move: 14 centimeters below the tip of the right mastoid (bone behind and below ear), and 14 centimeters from the tip if the right acromion (tip of the shoulder). They always referred to the wound as being "thoracic," and never used the word "cervical." However, the autopsy diagram was deceptive, showing the line to slant upward about by about 10 degrees, not enough, but at least it wasn't slanting downward.

There were no troublesome witnesses to the wound from Parkland Hospital to inhibit Lattimer. All of the doctors who saw Kennedy in Dallas testified they never turned Kennedy over and thus were unaware of a back wound, all, including the late Marion ("Pepper") Jenkins, who later changed his story to fit

Lattimer's, claiming he felt the hole with his fingers. Why did Jenkins wait 15 years to describe it? From Lattimer's book, *Kennedy and Lincoln: Medical & Ballistic Comparisons of Their Assassinations*:

> "The body was removed so unexpectedly and so abruptly from Dallas that no written report about their being a bullet wound in the front of the neck could be prepared in time to send with the body...Nor was Dr. Jenkins's knowledge of the bullet holes in the back and front of the neck entered in the record before the body was carried away."

The hospital records, all of which describe wounds in the throat and head but not the back, were written after the body was carried away. If Jenkins had shared his alleged knowledge of a back wound in 1963, would his colleagues have speculated publicly about a source of the shot in front of the motorcade?

Jenkins's memory of the back wound is no less perplexing than Admiral Burkley's memory of the throat wound. Burkley was with Kennedy in the trauma room in Dallas during the tracheostomy procedure and before chest tubes were placed to alleviate a possible pneumothorax.[6H69] Burkley was also very present at the autopsy; why didn't he mention this "exit wound" to the autopsists who were frantically searching for the bullet that entered the back, leaving a wound that could not be probed? And why wasn't Admiral Burkley called to testify before the Warren Commission?

Autopsist Colonel Pierre Finck said the back wound penetrated only the "first fraction of an inch."[Shaw Trial, p.120] Yet, there was no neck dissection, a procedure which would have shown whether the back and throat wounds were the result of one bullet -- or two. Commander Humes told JAMA a neck dissection would have been "criminal," and seemed "unnecessary." They said they didn't know there was another wound in the front obscured by the tracheostomy -- a wound that needed explaining.

The main purpose of the autopsy was, the autopsists said, to find bullets, and there was no time for an "unnecessary" neck dissection, especially with the Kennedy family rushing them. Why, then, did they find the time to measure the circumference of every single heart valve, the thicknesses of the pericardia, weigh each lung, slice the kidney, spleen, and liver, etc.?

The autopsists said a connection between the back and front wounds was proven by a "third reference point," a bruise on top of the lung. It appears that Lattimer contributed a

fourth: He said the bullet traveled through the esophagus.[JAMA 1966;198:327] He referenced the hard-to-read handwritten autopsy report, instead of the typewritten one; neither mentions esophagus. Lattimer repeats this claim in his book in 1980 but, curiously, omits it from his 1972 report on the autopsy materials.[Resid Staff Phys 1972;18:34]

There is no direct photo of Kennedy's back wound, only an oblique one, making its location difficult to assess. Finally, there is no lateral (side view) X-ray of the alleged path of the bullet from back to neck. These omissions are as noteworthy as the basic facts themselves.

BALLISTICS

It would appear that Kennedy was hit in the back by one bullet that barely penetrated, and by another in the throat that came from the front -- if the following premises are correct: (1) the bullet entered the back at the level of T3 or even T2; (2) the bullet did not penetrate the lung; (3) the wound in front was in the lower third of the neck, as reported by all concerned. If numbers 1 and 3 are correct, then number 2 cannot be correct. There is no way a bullet entering at T2-3 and exiting from the throat could avoid puncturing the lung.

Picture a seesawing line between the back and front wounds, on top of the lung, acting as a pivot: The lower the back wound, the higher the front wound. The higher the front wound, the lower the back wound -- and the further away it points from Lee Harvey Oswald.

It is not valid to assume the throat wound was an entry because of its small size. Forensic-ballistic literature of the last 50 years makes it clear that high and medium velocity bullets can leave small exit wounds if their progress is undisturbed. But what happens inside? Ballistics expert Michael Owen-Smith:

> "...something peculiar happens to the mechanism of injury...caused by a bullet at about the speed of sound. New physical phenomena come into play that cause wounding effects...similar to an explosion."

Bullets traveling at the speed of sound, 1,100 feet per second, are associated with a phenomenon known as "cavitation," the creation of a temporary cavity several times the diameter of the missile. Tests performed by experts on both sides of the controversy show that a bullet from a Carcano would have been traveling at a speed of about 2,000 feet per second when it reached Kennedy's back.

Did Kennedy's back wound show effects "similar to an

explosion?" With cavitation, air is sucked into the wound, the presence of which reveals the path of the bullet on X-ray. Front and oblique x-rays of Kennedy show air only near the trachea. A lateral x-ray would have been more revealing. Why was none taken? The autopsists took the time to x-ray Kennedy's knees; surely a lateral x-ray in this case was more relevant.

ALCHEMY

In 1968, the Clark Panel claimed that metal fragments were seen on x-ray and, it seemed, the bullet had left its calling card at the appropriate height. In 1972, Lattimer gained unique access to the autopsy materials, and confirmed the presence of metal fragments at C7. Two years later, a strange thing happened. Lattimer said the fragments were bone (at C6-7), not metal, based on "x-ray studies of various materials."[Med Times 1974;102:33] What studies? What materials? The article included archived photos of Connally's wrist and thigh x-rays, along with x-rays of two test limbs, all containing lead fragments -- but there was no bone-versus-lead analysis. The "study" consisted of mounting a row of bullets on a plastic rod and placing it through a skeleton to represent the alleged path of the magic bullet, and then explaining that "the course of the neck bullet lay in the vicinity of the tips of the transverse processes..." So, he constructed a model to fit his theory, studied the model as if it were reality, and announced the results of the "study," "proving" that the bullet struck bone, left fragments that were bone and not metal, and entered a little higher ("6-7" vs C7).

Lattimer published another paper, again claiming the fragments were bone, now at C6, and gave a different reason:[NY Acad Med 1977;53:281] The fragments showed up on one X-ray, but disappeared on another, when "superimposed over the bodies of the vertebrae." An impressive argument, I thought, but where did it came from? Why didn't he use it before? Two different reasons for an interpretation of bone, none confirmed by a radiologist, all suggested Lattimer had a powerful reason for persuading the public that Kennedy's spine was struck. I may have found that reason: One year before Lattimer's "discovery," pathologist and critic, Dr. John Nichols, reported,

> "...jacketed bullets usually do not leave particles of metal in soft tissue when bone is not struck."[The Prac 1973;211:625]

That could explain <u>why</u> metal became bone. Another Nichols paper could explain <u>how</u>.[MD State Med J 1977;26:58] Nichols noticed the fragment in Governor Connally's thigh was present on one X-ray, but not another. The object would show up only

when "the X-ray beam strikes the foreign body without intervention of bone..." If it had been metal, it would have shown up on all X-rays. This metal-on-bone versus bone-on-bone rationale was just what Lattimer needed to explain the densities on the X-rays, or so he thought.

Radiologists William B. Seaman and Norman Chase, former chairmen of their respective departments, told the HSCA the opacities were "too dense to be bone." Others expressed the opinion the densities were artefact, especially since they appear in irrelevant places. It is interesting that Gerald Posner, author of *Case Closed,* reports Lattimer's interpretation instead of the expert opinion of the radiologists.

Conclusion: The densities are neither metal nor bone, and there is no radiological evidence of the back wound.

RESOLVING DISCREPANCIES

The findings of the Clark Panel and HSCA raised questions about the authenticity of the x-rays as well as the competence of the autopsists. Lattimer used alchemy to explain how the autopsists could miss seeing the fragments: If they were bone, they would be harder to see. But first he tries to solve the problem by implying, but not actually saying, the autopsists didn't get a chance to study the X-rays. Sample:

> "The underdeveloped negatives and the developed X-rays which the doctors had taken for the purpose of reference, in anticipation of using them in preparing an accurate and detailed autopsy report, were ordered turned over to the FBI before development. These photographs were not seen, even by the men who did the autopsy and took the pictures until three years later."

Notice the last sentence concerns only the photographs, but the impression is, the x-rays were not seen. The inspiration for this sleight of word may have come from the testimony of Commander Humes, who didn't seem to know what he was supposed to say to the Commission:

> "...the photographs and the X-rays were exposed in the morgue...and they were not developed, neither the X-rays or the photographs. They were submitted to the...Federal Bureau of Investigation..."[2H351] [Emphasis added.]

Humes contradicted himself soon after:

> "The X-rays were developed in our X-ray department on the spot that evening, because we had to see those right then as part of our examination..."[2H372]
>
> "...we examined carefully the bony structures in this

vicinity as well as the X-rays... and we saw no such evidence, that is no fracture of the bones of the shoulder girdle, or of the vertical column, and no metallic fragments were detectable by X-ray."[2H361]

After changing the fragments from metal to bone, Lattimer updated the excuse for the missed finding. In the Autopsy Report as reprinted in Lattimer's book, following the words, "struck no bony structure," Lattimer slips in this false statement:

"Note that the X-rays had now been removed by registered government agents and could not be studied for bone injury."

This doesn't work. Russell H. Morgan, M.D. of the Clark Panel said he thought the fragments were metal "because they showed up so well."

Lattimer also used the excuse of the unexamined x-rays to explain why the Clark Panel and the HSCA placed the both the head and the back wounds four inches higher than the autopsists. "The autopsy surgeons had...little chance to make precise measurements on the films (for example, to pinpoint the wound of entry on the skull)."[JAMA 1993] In his 1972 paper when he describes his own attempts to locate wounds, Lattimer accidentally tells the truth, "While exact measurements on a photograph or X-ray film could...never be as accurate as measurements on the body itself..."

Conclusion: There is no satisfactory explanation for the discrepancies described above.

NEUROLOGY

Lattimer tried to reinforce his radiological findings with neurology, claiming Kennedy's behavior following the back wound indicated damage at C 6, as manifested by the "Thorburn reflex position." But every time you struggle with a pullover sweater, you go through movements similar to Kennedy's. How do neurologists know if an immobile muscle is paralyzed, or just unemployed, if a contracted muscle is responding to will, or is in hyperreflexia? They look for subtle signs of purpose in a movement, and the freedom to make it. As reported earlier, I confirmed my suspicion that the neurosurgeon, Dr. Edward Schlesinger, whose name appears on the 1977 paper, never saw the few seconds of filmed "symptoms." He told me he suggested Lattimer "look into the Thorburn business," based entirely on a description of Kennedy's behavior. He also volunteered that co-author, distinguished neurologist H. Houston Merritt, "had nothing to do with it." Their help was purely cosmetic.

Lattimer referenced no modern literature when analyzing Kennedy's movements, and provided few facts of the Thorburn case. However, contrary to what was previously published in Probe, it is valid to compare Kennedy with Thorburn's patient who had destruction below the origin of the fifth cervical nerves and above the sixth -- this necessarily affects nerves associated with the sixth cervical. Furthermore, it is valid to compare complete and incomplete spinal transections; behavior can often indicate location of a spinal injury, irrespective of the severity. But a neurologist should do the comparing.

What if a neurologist declared Kennedy's movements revealed purpose as opposed to spinal damage? This would hardly rule out a shot from behind. Kennedy might have reached toward his throat regardless of whether the bullet tore it on the way in, or on the way out. The problem for the lone assassin theorists is <u>when</u> he manifests this behavior: at a time when Governor Connally seems to have not yet been shot.

In JAMA, 1993, Lattimer again dabbled in neurology as he explains the progress of the bullet's effects. "President Kennedy's right arm started its upward movement...His left hand also started coming up, at a slightly slower rate, as the shock wave from the bullet spread..." He illustrated the article with a sequence of frames from the Zapruder film. In frame 224, when, according to Lattimer, neither hand is reacting yet, the <u>left</u> hand is actually raised high in a fist. Lattimer solved the problem by covering up -- physically covering up -- Kennedy's left arm with a photo-inset of the magic bullet. (Lattimer's work usually involves giving the cover-up a touch-up, but in this instance, he went a little further.)

Conclusion: There is no proven neurological basis for assuming any spinal damage at any level.

ENDOCRINOLOGY:

In his 1993 JAMA article, Lattimer makes a desperate effort to move up the wound: "Because the back of Kennedy's neck was the site of a large fat pad from the steroids he was taking, the bullet strike would have passed more downward than in a normal person's neck. The fat pad, plus any leaning forward, would have accounted for the course of the bullet through the right side of the base of Kennedy's neck."

As shown earlier, Kennedy had not been leaning forward. More important, as Commander Humes explained in JAMA in 1992, "...the President...did not have the appearance of a man with the odd fat deposits...associated with the cushingoid appearance."

Conclusion: There was no fat pad on Kennedy's back. The need to raise the trajectory is so great, Lattimer would contradict those who directly examined the body.

SUMMARY

No evidence contradicts Admiral Burkley's claim of a bullet entrance in Kennedy's back at the T3 level. No evidence contradicts autopsist Pierre Finck's claim that the wound was no deeper than "the first fraction of an inch." No evidence connects the front wound with the back wound.

Using bogus radiology, neurology, and endocrinology, John Lattimer tried to move up Kennedy's back wound to create a trajectory that was 20 degrees off the horizon, one that would lead back to Lee Harvey Oswald. In addition, he used the same pseudoscience to resolve the discrepancies between the Clark Panel and the Autopsy Report. And he tried to connect the front and back wounds with one more link: the esophagus; not even the autopsists made this claim. Not one qualified specialist who has examined the evidence has endorsed this urologist's claims, the spread of which has created an intellectually unsanitary condition. This is not to say that John Lattimer has not applied his own personal specialty to the issue of the Kennedy assassination; the question is, what specialty is it? Lattimer is entitled to express a viewpoint, but he should expose all known evidence that contradicts it. He is like a third-rate magician, the kind who pulls the rabbit out of the hat, without first showing you the "empty" hat. And the rabbit is dead.

What kind of people would accept this performance?

CAPTIONS

Back Wound. Autopsy photos should be studied with the underlying anatomy in mind to see where the back wound might have been in relation to the spine. The claim made by the President's personal physician of a back wound at T3 seems to be supported by these photos. Notice the height of the lung in relation to the spine and throat. (Size and orientation of photos and diagram are not equivalent.)

Throat Wound: The Real Incision? Above the gaping wound may be the remains of the real incision. Just below the Adam's apple, there is a mysterious circle. Tangential to the circle is a mysterious line that extends to Kennedy's left, but not

to his right. I have marked the line for easy identification. The line is almost at the level of the second or third tracheal ring, right where Drs. Malcolm Perry and Charles Baxter said the wound was. The line extends only to the left. Dr. Perry said he cut the strap muscles on the left side to get at the trachea, which was deviated to the left. The line appears to be the meeting place of two surfaces, the top protruding slightly more than the bottom, giving it a third dimension, and the appearance of a sutured wound. The circle is too large to be the reported 3-5mm entrance wound, and may be an indentation left by some sort of breathing equipment. Whatever these marks are, they deserve further study.

The Parkland doctors said they were too busy trying to save the President's life, and had no time for the exploratory surgery to the right of the bullet's entrance that seems to have resulted in the gaping wound. Does it represent a search for bullets?

Throat-Lung trajectory. If Kennedy was shot in the throat from the front, the bullet had to have come from the left side of the Triple Overpass. The wound in the skin was approximately midline, the right side of the trachea was damaged, and the top of the right lung was bruised. A shot from the grassy knoll would have bruised the lung on the left instead of the right. A shot from the left front may also explain the nick in the left lateral side of the necktie. At Zapruder frame 225, the triple overpass was only +0.26 above the horizontal with respect to Kennedy. When Kennedy had just turned the corner on Elm Street which slopes downward, he was actually above the level of the Overpass. So, the presumed vertical trajectory from this source is not inconsistent with Kennedy's wounds.

I wish retracing the trajectory of a lie were this easy.