UNIVERSITY OF MINNESOTA

Neuroradiology Section
Department of Radiology
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John David Sabow, M.D.
909 St. Joseph
Suite 555
Rapid City, S.D. 57701

Dear Dr. Sabow:

Thank you very much for allowing me to review the imaging study and the autopsy photographs on Col. James E. Sabow.

The enclosed radiograph obtained of the patient's head and neck is unlabeled. Presumably given the location of the name marker, the head is turned to the left side. The radiograph reveals extensive buckshot overlying within the cranial vault as well as within the soft tissues around the skull base. A depressed skull fracture of the occipital bone is demonstrated on the right with the extent of depression measuring approximately 1.5 cm. No other fractures over the calvarium are noted. The skull base is difficult to assess due to the position of the head and overlying metallic fragments.

When this radiograph is viewed in conjunction with the autopsy photos, the direction of the skull fracture is inconsistent with the effects of a gunshot wound. A fracture that is directly related to the gunshot wound would have bone fragments displaced in the opposite direction. Furthermore, the degree of depression of the bone in this region is inconsistent with a fracture related to a fall after an inflicted gunshot wound, unless the person had fallen from some height. To sustain a depressed skull fracture of this type, it would be necessary to inflict a large force locally to this region of the calvarium. Furthermore, the extent of swelling over the fracture that is visualized on the photographs would indicate that the fracture was sustained prior to the fatal gunshot blast.

In summary, these radiographs demonstrate a depressed occipital skull fracture on the right side, most consistent with local blunt force inflicted to that area of the calvarium. The fracture is inconsistent with injury at the time of, or after, the gunshot wound to the posterior fossa.

This case was presented at the Neurosurgery-Neuroradiology combined conference on 3/27/96. Independent review by two other neuroradiologists and three neurosurgeons in attendance unanimously concluded the following points:

(1) The right occipital skull fracture was related to blunt force inflicted locally to the right posterior skull base-occipital region.

(2) The gunshot wound was of such magnitude that the bony structures of the central skull base are unidentifiable consistent with a wound inflicted through the mouth.

(3) The fracture could not have occurred as a direct result of the gunshot wound.

(4) The degree of soft tissue swelling in the occipital region on the right indicated that the blunt force to the head occurred prior to death.

(5) The fracture could not have occurred as a result of an erect person falling on a hard surface after a self inflicted gunshot wound to the head, because of the severity and the location of the fracture. Thus, it would be necessary that the person fell from some greater height, the degree of which would depend on the surface to which the person fell unless the head struck a hard protruding object prior to the body striking the ground.

Feel free to contact me if you have questions or need further clarification.

Sincerely,

Kent B. Remley, MD
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