NEW LIMITATION CHANGE

TO
Approved for public release, distribution unlimited

FROM
Distribution authorized to U.S. Gov’t. agencies and their contractors; Administrative/Operational Use; 29 MAR 1965. Other requests shall be referred to Office of Naval Research, Arlington, VA 22217.

AUTHORITY
CFSTI per DDC ltr, 17 Nov 1965
29 March 1965

William Fields Caveness, M.D.
Responsible Investigator

Colombia University

FINAL REPORT FOR: NONR(G) 00011-63 effective 1 September 1962 to 31 August 1963

NONR(G) 00036-64, effective 1 October 1963 to 30 September 1964

NONR 2690(00), effective 1 September 1958 to 31 August 1964.
The property on this was transferred to the present contract NONR 4728-00, effective 1 October 1964 to 30 September 1965.
NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.
Purpose of study - To better understand the relation between cranio-
cerebral trauma and its sequelae.

A study has been conducted of 407 U.S. Marine and Navy personnel
from the Korean campaign who received head injuries in combat or supporting
activities between 1951 and 1953. Small arms fire, mortar fragments, land mines
and other missiles accounted for 214 of the injuries, blast for 52 and trauma unrelated
to missiles for 141. Seen at the time of injury by Drs. Henry R. Liss, John S. Meyer
or William F. Caveness, these men were followed for the first five years (NONR
266(66)) by a review of the original field and hospital records in 100 per cent of the
cases, questionnaires in 90.6 per cent, personal correspondence in 37.5 per cent,
periodic physical examination in 25.5 per cent, additional interviews in 24.5
per cent, American Red Cross field study in 69.0 per cent and Veterans Administration
records in 66.5 per cent. Attention was directed to the stabilized neurologic deficit,
posttraumatic epilepsy, posttraumatic syndrome and social and economic factors,
as these appeared in this interval.

Subsequent to the preceding, additional data have been acquired through
periodic certified mail, a review of entries in Veterans Administration records and, in
special instances, by personal telephone calls. Of assistance in this has been the part-
time aid of Drs. Verne S. Caviness, Eugene Mayer and James MacD. Watson. Dr.
Watson, a former associate, is now a staff member of the Veterans Administration
Hospital in Syracuse, New York. Contact has been maintained with 356 men, 197 of
whom had received missile wounds, 159 blast and non-missile wounds. Latterly, the
parameter of posttraumatic epilepsy has received especial attention. Ten years after
injury, the overall incidence of epilepsy is 30.6 per cent. In the missile injured,
incidence is 42.1 per cent, in the blast and non-missile injured, 16.4 per cent.
Further analysis of these data is in progress. In addition, serial EEG's of the Korean
veterans are being put on IBM cards for analysis and comparison with their clinical
records.

To provide a greater longitudinal perspective of the sequelae of cranio-
cerebral trauma, the fifteen year follow-up of these patients will begin in 1966. To
provide a greater depth to the Korean material, the present status of former U.S.
Army personnel has been sought in conjunction with their surgeon at the time of in-
jury, Dr. Arnold Meirowsky. Dr. Meirowsky has made contact with approximately
700 of his patients, and hopes to include these cases in the fifteen year follow-up
for analysis and comparison.

To better evaluate the significance of changing factors, i.e., the char-
acter of wounds, complications, and therapeutic effort, a comparative study has be-
gun of sequelae of head injuries received in World War I, World War II, and Korea.
The first part of this has included a reappraisal of the British material from World War I
by Dr. Peter B. Ascroft and of that from the U.S. Army in World War II by Dr. A. Earl
Walker. This has continued with the addition of German material from World War I, in collaboration with Dr. Karl-Heinz Leuchs. The feasibility of this was determined by an ONR-sponsored pilot study of the German records at the Himverletztenheim in Munich during August and September of 1961. At this time 500 cases are being transferred to IBM cards, from the German study, for analysis and comparison.

Published Reports From this Study:


