

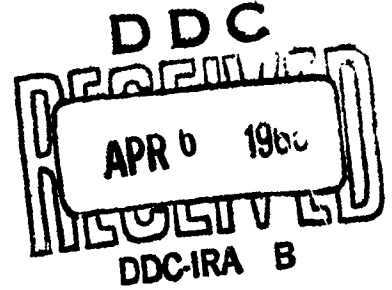
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AD NUMBER
AD466159
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466159



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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.

29 March 1965

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Responsible Investigator

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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. Caveness, 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 injury, Dr. Arnold Meirovsky. Dr. Meirovsky 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 character of wounds, complications, and therapeutic effort, a comparative study has begun 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:

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- W.F. Caveness, Kai C. Nielsen, Sequelae of cerebral concussion. N.Y. State J. Med., 61 (ii): June 1, 1961.
- W.F. Caveness, H.R. Liss, Incidence of posttraumatic epilepsy. Epilepsia. 2:123-129, 1961.
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- W.F. Caveness, Onset and cessation of fits following cranio-cerebral trauma. J. Neurosurg., Vol. XX, No. 7, July, 1963.
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