PARAPLEGIA FOLLOWING WAR*

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1. INTRODUCTION

TWICE in three decades, war with its thousands of casualties has created a large number of patients with serious disturbance, or total destruction, of spinal cord function. During and following World War I admirable studies were achieved in spinal reflex activity. The work of Head and Riddoch[1] is an example. In the intervening years, work done by the neurologist, neurosurgeon, physiologist, and urologist, has laid the foundation for a new approach to the problems of the paraplegic patient. Emphasis has shifted from the field of neurophysiological research to the many aspects of therapy, some of them experimental still, designed to return the paraplegic patient to independence. The work to be presented has developed from that of Munro[4, 7] and Deaver and Brown.[2]

During the summer of 1945 some 200 paraplegic patients were gathered into four centres strategically placed across Canada. During the period from February 3, 1945 to June 1, 1946, 103 post-traumatic paraplegic patients from the Armed Forces have been treated in Christie St. Hospital and Lyndhurst Lodge, Toronto.

The paraplegic during the days following his injury is numbed by what has happened to him. One moment he is a healthy, keen, strictly disciplined young man. The next he is gone from the waist down, paralyzed, insensitive, unable to fulfil the basic requirements of life in terms of emptying his bladder and bowels. He is fully dependent upon those around him. It is a shattering experience, as anyone who has received the confidence of these men knows well. Eventually he arrives in Canada. The journey has been an exhausting one by hospital ship and hospital train. A multitude of problems beset such a patient. Pressure sores commonly developed during the period of evacuation. Practically every patient arriving in Canada had a pressure sore over the sacrum and often over both trochanters as well. Suprapubic cystotomy had been done on all patients with serious spinal cord injury. Sexual function is abolished and many men are fearful of meeting their fiancees or wives. This combination of circumstances produces a feeling of lassitude, inertia and despondency.

That one may appreciate this problem, it is necessary to picture a ward full of patients some months after they have been injured. Should circumstances prevent the establishment of suitable wards, staffed with keen and understanding orderlies, nurses and doctors, such patients quickly develop the feeling that they are forgotten men. A state of despondency develops, spreading from one to another, including the relatives, the visitors and ultimately the professional staff who serve the patients. One of our colleagues was reminded of the moving pictures of a German concentration camp—feverish, listless, undernourished, hopeless patients; spontaneous activities reduced to a minimum, the patients doing little or nothing for themselves, believing that they should not or could not. Chills and fever as a consequence of genito-urinary sepsis are taken for granted. Pressure sores do not heal. The patients are toxic, nutrition is poor, blood proteins are decreased. The whole is a vicious circle.

2. APPROACH TO THE PROBLEMS OF PARAPLEGIA

To start planning the treatment of a large number of paraplegic patients is to be nonplussed by the variety of problems requiring solution. To know where to begin is difficult. Quickly the realization develops that a team effort must be evolved.

Survival of these men depends upon the urologist preventing or controlling genito-urinary sepsis. Though his technical effort be of the highest order, he is doomed to failure unless the patients can be made sufficiently mobile that gravity aids in draining the kidney pelvis and ureters. The patients must be convinced that independent mobility is desirable. This can only be brought about if orderlies, nurses, doctors and physiotherapists know that the majority of paraplegic patients can master wheel-chair life and many can learn independent brace-walking with crutches. Unless the patients can control the paralyzed bladder and bowel sufficiently to ensure that they may

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