Aging with Spinal Cord Injury  
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There are numerous changes that occur as an individual ages and SCI people are no exception. In fact, there is evidence that SCI people tend to "age faster" or experience some of the changes commonly associated with aging at an earlier age. This phenomenon is both a function of the absolute age of the individual and the length or number of years the individual has had the SCI. As a result of this, the SCI person has changing needs throughout the course of their lifetime. The life care plan should reflect this change in needs by incorporating the appropriate services and equipment to meet the anticipated need as the individual ages. For example, it can be anticipated that an individual that has had an SCI for 20 to 25 years will have a great deal more difficulty with upper extremity pain and complications and may consider at that point using a power wheelchair rather than a manual chair. Similarly, the patient, as he ages, may have more difficulty with transfers and self care needs and require a higher level of attendant care than when he was young.

Menter and colleagues, among others, have documented some of the changes that occur (Stover, 1995, Whiteneck et al. 1991, Yarkony et al. 1988). Menter has described physiological changes that occur with aging such as a loss of muscle mass, decreased strength, decreased range of motion, increasing osteoarthritis, combined together that lead together to increased pain and decreased functional status. In addition, there are increasing problems with urinary and bowel management that occurs. When these effects occur in the SCI person, they are additive and accelerate the decline of the person's functional status. Menter's model of aging predicts a functional decline that will begin between 15 and 20 years post injury for the average SCI patient.

Specific Problems Associated With Aging and SCI

Pain

Pain has been reported to occur in over 90% of individuals with a SCI (Melzak, 1978). There are several types of pain that can increase. One is musculoskeletal pain from overuse of the upper extremities, osteoarthritic changes, etc. Two is a central pain from the spinal cord injury that is usually described as a burning dysesthetic type pain that has been reported to increase with aging. A neurological pain can develop due to poor posture, arthritic changes at the spinal column, or peripheral nerve entrapments that will further deteriorate the patient's functional status. Woozly has reported pain is frequently a major lifelong management issue in patients with traumatic myelopathy. Potential sources of the pain include bones, ligaments, spinal meninges, cauda equina, and the spinal cord itself (Schmitt, 1995). Local pain at the level of the spinal cord injury in the spinal column may be addressed with surgical procedures even after having been present for a number of years (Bohlman et al., 1994).
Pain control techniques such as physical therapy, TENS unit, electrical stimulation, and whirlpool therapy should be considered. The individual may require an inpatient pain management program.

**Spasticity**

Spasticity has been reported to increase with time. It can become quite problematic and difficult to control. As an individual ages, they may no longer tolerate the medications to treat the spasticity and require the placement of an intrathecal Baclofen pump.

Spasticity may require additional physical therapy, whirlpool treatments, or electrical stimulation in order to control.

**Fatigue**

Fatigue has been reported as one of the most common problems affecting lifestyle and quality of life. It is a difficult problem to treat. As a person ages, they have a decline in strength. The fatigue can best be addressed by providing more assistive equipment reducing the level of activity or providing additional personal care services.

There is mounting evidence that there are physiological and hormonal changes in the spinal cord injured population that contribute to aging at a faster rate than the able bodied population. Tsitouras and colleagues have documented abnormally low levels of serum testosterone, growth hormone, and insulin-like growth factors in individuals with spinal cord injuries which predisposes the individual to age related changes (Tsitouras, el al. 1995). There is little doubt that other changes will be discovered as time goes on that correlate with Menter's theory that the spinal cord injured person ages at a faster rate.

Works Cited:


