People with Spinal Cord Injury in Greece

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Epidemiology of Spinal Cord Injury in Greece

There are no reliable epidemiological data regarding the incidence, prevalence, and mortality rate after spinal cord injury (SCI) in Greece. The only evidence available comes from studies that cover only a small part of the total Greek population. The larger study available reports an annual incidence rate of 33.6 per million, and transportation accidents are reported as the leading causes of injury. (The study refers to the greater Thessaloniki region, consisting of Central and Western Macedonia. The reported data correspond to the years 2006–2007, where the population of this region was approximately 2 million inhabitants. In the same years, the Greek population was 11.16 million inhabitants.) The percentage of injured males was significantly higher than that of the females.

The Patient Journey Through the Chain of Care

There are emergency medical services available to all citizens in Greece, regardless of their financial or insurance status. The National Centre of Emergency Health Care (EKAB) was founded in 1985 (according to the law, no. 1579/1985) and is a public entity supervised by the Ministry of Health, responsible for coordinated first aid and emergency medical care to citizens and their transfer in health care units. Highly skilled health personnel trained in emergency services reach the place of injury by ambulance or helicopter depending on the geomorphology. Services of the EKAB services are established and operating in 12 regions all over Greece as stand-alone branches. Each EKAB branch is responsible for a particular geographical region. The geomorphology of Greece (several remote islands and mountains) has significant effect on mean transfer delay at hospital. In the areas the EKAB services can reach the injured person, acute care starts even before the patient reaches the emergency department, with spinal immobilization principles, which are well established in Greece, and are followed to prevent secondary injury to the cord (data provided by the EKAB medical service).

In Greece, given the absence of specialized centers for SCI, patients with acute SCI are admitted to orthopedic, neurosurgery, or specialized spine surgery departments of general hospitals.

Rehabilitation services should begin in the intensive care setting. However, most of the times, owing to lack of rehabilitation teams providing health care in the acute SCI stage, initial rehabilitation management is limited to physiotherapy. After the acute phase, usually during the first month after injury, patients are transferred to public or private rehabilitation departments, where the interdisciplinary approach of the rehabilitation team is provided. According to Hellenic unpublished data, the average initial hospitalization in Rehabilitation Departments is 7 months.

The prevalence of patients with SCI of traumatic and nontraumatic origin represents 5.7% of the total number of rehabilitation beds. Patients with SCI of traumatic or nontraumatic origin are dispersed in several rehabilitation centers, and the average number of patients with SCI is 3 patients per center. During inpatient rehabilitation, persons with SCI and their family members or significant ones receive information and training regarding bladder and bowel management and skills such as transferring, wheelchair skills, and assistance for activities of everyday living. Information concerning sexual function, fertility issues, and psychological burden is poorly addressed, however.

Entering the chronic phase, a large percentage of Greeks with SCI have follow-up services provided by physical and rehabilitation medicine (PRM) physicians in rehabilitation departments. However, individuals with SCI (25.4%) seem to lose their initially gained independence with activities of daily living (ADL) during follow-up. In case of an emergency, these patients visit the emergency department of a general hospital, where physicians of specialties other than PRM treat them.

In addition, geographical region seems to affect the follow-up services. Distance from health facilities, lack of access to means of transportation, and unavailability of adequate infrastructure and human resources are reported as the main reasons.

In general, Greeks with SCI are not adequately prepared for the transition to live in the community. There are no policies to facilitate housing modifications and return to work. Furthermore, in the current period of economic crisis, even basic issues like assistive devices are not considered priorities. Consequently, individuals with SCI use inappropriate equipment resulting in complications, many of which could have been prevented.

Living with SCI

A young person with SCI faces many obstacles to return to school. It is difficult to overcome feelings of low self-esteem, and there is not always organized counseling available, or other...
preparatory supports. In addition, the lack of teachers trained in
the needs of children with SCI, as well as bullying by other stu-
dents can have a negative impact on their decision to return to
school. Finally, exclusion of the educational system is often
due to physical environmental barriers. Greece needs to pre-
pare a practical education policy, strategies for making school
buildings accessible, as well as to provide educators trained
in the needs of children with SCI.

The State is making promising steps toward vocational
reintegration, but it must be noted that vocational counselors
do not participate in the rehabilitation team. As far as employ-
ment is concerned, obtaining a job or returning to a preinjury
employment is also a challenge. Lack of vocational rehabili-
tation, counseling and preparation, and inappropriate work ad-
justments and accommodations exclude people with SCI from
most jobs.1

THE HEALTH AND REHABILITATION SYSTEM

A public-private combination of both funding and service
delivery characterizes the Greek health care system. The Na-
tional Health System provides universal coverage to everyone
and operates according to the principles of equal access to
health services for all. Insurance coverage of hospitalization
costs in public rehabilitation centers is 100% in contrast to pri-
vate rehabilitation centers, where only 50% or less is covered.

Greece has one of the highest rates of physicians (6.2
per 1000 population), and one of the lower rates of nurses
(3.3 per 1000 population).15 Unfortunately, very few of them
are trained in SCI rehabilitation issues.

Nowadays in Greece, inpatient rehabilitation facilities have
significantly increased compared to some decades ago.1,16 Reha-
bilitation services for the acute and postacute phases of SCI are
provided in general hospitals and rehabilitation centers, in the
public and private sectors. Public rehabilitation structures are
lacking: there are only 5 public PRM departments in general
hospitals and the National Rehabilitation Center, all of which
are located in Athens, with a total of 234 beds (data provided
by the Hellenic Society of PRM). There are also several regional
public rehabilitation departments in Greece, but owing to
lack of qualified staff, they are not in use or they function be-
low their capacity. More than 2000 rehabilitation beds have
emerged in the private sector during the past decade, located
in semi-urban areas and towns in different areas of Greece.9

WHAT IS THE STATE OF SPECIALIZED CARE?

No national health strategy for people with SCI has ever
been designed in Greece.

The first Rehabilitation Department for people with SCI
in Greece was founded by private sponsorship in 2010.16 It is
part of the General University Hospital of Patras, the third larg-
est city of Greece, covering a population of approximately
1 million people. Unfortunately, the foundation of the hospital
coincided with the economic crisis in the country. As a result, it
remains understaffed, and many inpatient and outpatient ser-
ices are not fully developed. The lack of resources also affects
the outpatient services and the efforts toward the prevention of
secondary conditions and complications of SCI. Efforts for
creating a proper interrelation between acute medical care, re-
habilitation, and community integration are in development.17

In general, Greek health care system still faces problems
related to lack of trained health staff. Very few of Greek rehabil-
itration therapists work as members of a rehabilitation team.18
Most work in their own private offices. Even fewer ther-
apists are specialized in SCI rehabilitation. Although there
are well-trained PRM physicians in SCI, the lack of special-
ized spinal cord units has a negative effect in the quality of
care. Furthermore, the rehabilitation services provided by
the general rehabilitation centers are not reliably assessed.19

People with SCI have access to assistive technology such
as wheelchairs and home equipment. According to the legisla-
tion in force since 2012, approximately 50% of the actual cost
of these devices is covered, whereas necessary home adapta-
tions are not covered at all.20

THE SOCIAL RESPONSE TO SCI

A telephone survey conducted in November 2013 re-
vealed that persons with mobility impairments (including para-
plegia and tetraplegia) face difficulties related to financial
issues (51.6%), public services (49.1%), and discrimination
and social exclusion (29.0%).21 Another recent study on wheel-
chair users reports significant poor quality of life.22

Home accessibility represents a major challenge for peo-
ple with SCI, and public means of transport (buses and trains)
are often wheelchair inaccessible. In Athens, most metro sta-
tions are wheelchair accessible. Wheelchair-accessible private
taxis are available, but their drivers must be informed in ad-
ance. Issues of accessibility are addressed in a very popular
SCI community site: http://www.rollout.gr.

THE INTERNATIONAL SPINAL CORD INJURY
(InSCI) COMMUNITY SURVEY

What Do We Hope to Gain from Participating in the International Spinal Cord Injury Study?

To improve SCI management, it is necessary to better un-
derstand rates of occurrence and to have a clear view of the in-
cidence and prevalence of SCI. This knowledge will enable
health care providers to estimate both the cost and psychosocial
burden of SCI and the resources required for SCI management.

International spinal cord injury (InSCI) survey will help
us toward this direction. The Greek translation of the InSCI
survey questionnaire will be reviewed and approved by a re-
search ethics committee before the operational phase of the
survey. Patients with chronic SCI (≥1 year after injury), of sud-
dden onset (traumatic or nontraumatic), age 18 years or older,
community dwelling, residents of Greece, capable of answerr-
ing the survey questionnaire, and without concomitant cogni-
tive impairment will be included. Persons with progressive
etiologies of SCI will be excluded. Participants will be in-
formed through letters and telephone calls from member lists
of associations of persons with disabilities and SCI and
through hospitals’ and associations’ Web sites. Information
will also be provided during their regular reassessment as out-
patients in rehabilitation departments. Letters and telephone
calls will be used as reminders. Means of contact (first contact
and reminders) will be with mixed mode of written initiation
letter, e-mail, postal mail, and telephone. Methods of data col-
lection shall include online questionnaire, paper-and-pencil
questionnaire, interviews (possibly computer assisted), face-to-face (eg, hospital, at home), and telephone call. Data will be collected, stored, processed, and strictly protected by members of the Greek InSCI study. Local database should be organized and connected to the international database.

During our national PRM meeting in February 2016, in Athens, the Greek translation of the International Perspectives on SCI and the InSCI survey were presented to the scientific community and authorities. It is expected that successful IPSCI implementation and InSCI survey will give the opportunity to develop national data of people with SCI in Greece and encourage policy makers toward decisions that will improve the situation for persons with SCI in Greece.

CONCLUSION

As a consequence of the absence of specialized SCI units in Greece, patients with SCI are admitted to various rehabilitation centers, where the provision of health care services is often suboptimal with regard to specialization and comprehensive rehabilitation. Current challenges include the following: (1) the identification of the incidence and prevalence of individuals living with an SCI in Greece; (2) the identification of their needs during the chronic phase; (3) the provision of long-term follow-up and maintenance of their functional capacity during aging; (4) the appropriate training of health care professionals not specialized in SCI issues; and (5) the support of public initiatives that challenge negative attitudes to disability.

REFERENCES

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