Dr Josanne Aquilina discusses the management of Secondary Progressive Multiple Sclerosis with Dr Ian Ellul.

Getting to Grips with SPMS

WHAT IS MULTIPLE SCLEROSIS AND MORE SPECIFICALLY, SECONDARY PROGRESSIVE MULTIPLE SCLEROSIS?

Multiple Sclerosis (MS) is an immune mediated inflammatory demyelinating disease of the Central Nervous System. It is characterized, as its name implies, by multifocal plaques of demyelination, disseminated in space and in time.

MS is highly heterogeneous and can be classified into different types depending on the pattern and nature of the course of the disease. The Clinically Isolated Syndrome (CIS) represents the first clinical attack of the disease. Approximately 90% of MS patients have a relapsing and remitting course with clear and distinct attacks with full or incomplete recovery in between. These are classified as Relapsing Remitting Multiple Sclerosis (RRMS) where there is no apparent progression of the disease during the periods of remission. The other 10% would have a progressive course characterized by worsening neurological function from onset, and such deterioration progresses gradually. These are classified as Primary Progressive Multiple Sclerosis (PPMS). When RRMS patients demonstrate continued and progressive deterioration without remissions, they become classified as Secondary Progressive Multiple Sclerosis (SPMS). The transition from RRMS to SPMS is very variable and may take 10 to 20 years from disease onset.

HOW DO YOU DIAGNOSE MS?

MS is the commonest demyelinating disease of the CNS and can start at a young age. The diagnosis is based on the clinical presentation, and corroborated by investigations with Magnetic Resonance Imaging of the brain and spinal cord, cerebrospinal fluid analysis and sometimes evoked potentials. Specific criteria of dissemination in space and in time must be satisfied.

WHAT IS THE PREVALENCE OF MS IN MALTA?

There are approximately 400 patients suffering from MS in Malta. These would include all the types described earlier.

HOW DOES MALTA COMPARE TO OTHER COUNTRIES IN RELATION TO THE PREVALENCE OF MS?

It is well known that the prevalence of MS is higher in the northern countries and many theories have been hypothesized to explain this, including sun exposure and vitamin D levels, environmental factors as well as genetic factors.

SINCE THE MAJORITY OF MS PATIENTS SUFFER FROM RRMS, WHAT ARE THE KEY SIGNS AND SYMPTOMS THAT INDICATE A POSSIBLE TRANSITION FROM RRMS TO SPMS?

The symptoms during the periods of remission after each relapse would, as the disease progresses, not return to baseline values but worsen over time. Furthermore, the remission periods decrease in duration, meaning that the frequency of the flare-ups increases gradually. This will result in progressive deterioration. The transition period is not always clearly identifiable and the diagnosis may sometimes be made in retrospect.

WHAT ARE THE CURRENT TREATMENTS FOR RRMS & SPMS?

There are different disease modifying treatments for RRMS. Approximately 25 years ago the beta interferons were introduced, followed by glatiramer acetate which is an immunomodulating drug comprising synthetic polypeptides. These are injectables with subcutaneous or intramuscular administration. Eventually oral agents were introduced, including fingolimod and dimethyl fumarate, both having immunomodulatory and anti-inflammatory properties. Fingolimod is a sphingosine-1-phosphate receptor modulator which sequestrates the lymphocytes in the lymph nodes. Other oral therapies introduced include teriflunomide and cladribine. Infusion therapies such as Natalizumab, Ocrelizumab and Alemtuzamab are used for highly active disease, under specialist supervision.

Treatment for SPMS is more limited. Siponimod which, similar to fingolimod, is also a sphingosine-1-phosphate receptor modulator, is currently the only licensed treatment available for SPMS with evidence of disease activity.

HOW DOES SPMS IMPACT THE LIVES OF PATIENTS AND THEIR FAMILIES?

As the disease progresses, patients become more dependent on families and/or carers due to the ensuing mobility issues. This translates into an added socio-economic burden on the family, community services and rehabilitation institutions.

SINCE SPMS IS A PROGRESSIVE DISEASE, HOW SHOULD PATIENTS KEEP TRACK OF THEIR PROGRESSION?

Patients should monitor their mobility and cognitive functions and possibly write them in a journal. These should then be discussed with the neurologist who would then determine the progression status of the disease.

ARE THERE ANY SUPPORT GROUPS THAT AN MS PATIENT CAN GET SUPPORT FROM?

There is the Multiple Sclerosis society of Malta, **http://www.msmalta.org.mt/**

HOW IS THE SARS-COV-2 PANDEMIC AFFECTING MS PATIENTS?

The risks inherent to the pandemic increase proportionally with the degree of vulnerability of patients. This stems from both the disease progression which can result in mobility issues, as well as the treatment of MS itself.