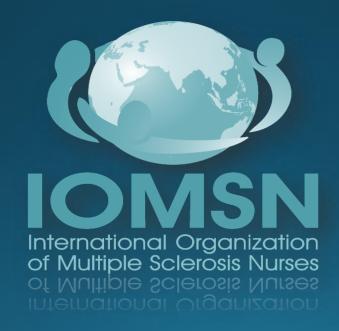
### Challenging Issues in MS

#### A Collection of Case Studies



- 23-year old male comes to your clinic for consultation requested by treating general neurologist. He is accompanied by his parents.
- Diagnosed with MS 3 months ago and started on interferon beta 1b after receiving 2 rounds of IV steroids 3 weeks apart with appreciable benefit in his gait. He reports that before the steroids he would often fall to the right and have to use the walls to walk.
- Consultation is to confirm that he is on best treatment option since a previous 2nd opinion recommended fingolimod or natalizumab.

• During history, patient reports symptoms initially started when he was 14-years old with acute right leg pain and weakness which was assumed to be sports related injury, "symptoms would come and go over the years."

• He reports that he started having balance difficulties and heat sensitivity when he was 15 and assumed he was "growing too fast."

- At 16 his parents report that he would became inappropriate "laughing uncontrollably and having drastic mood swings." He started failing in school and began socially withdrawing. They took him to a psychiatrist and were told that "he was acting out."
- He has had trouble keeping a job after high school and complains that he is always tired. He states that "everyone says I'm lazy and I need to grow up."

 He also reveals that he currently has bladder dysfunction, erectile dysfunction and trouble with attention, concentration and memory.

 His parents express guilt and sadness revealing that they assumed he had psychiatric issues.

 His exam reveals bilateral nystagmus on end gaze, right facial nerve palsy, dysarthria, spasticity in bilateral lower extremities, hyperreflexia throughout, sustained clonus RLE>LLE, sensory deficit for vibration below clavicles, upping toes bilaterally and ataxic spastic gait.

- Magnetic Resonance Imaging (MRI) taken before steroids in May reveal 6-8 enhancing lesions through out the brain with lesions noted in the periventricular white matter abutting the ventricles, thinning of the corpus callosum, as well as the cerebellum, and a large lesion seen in the pons extending into medulla.
- There are multiple T2 lesions seen in the cervical and thoracic spine.
- Cerebrospinal fluid (CSF) analysis was positive for oligoclonal bands and JCV antibody was negative.

- What are the next steps?
- Would you recommend a different therapy?
- What treatment options would you recommend?
- How would you counsel this patient? His parents?
- What other interventions should be initiated?

- 35-year old executive who works 50-60 hours a week.
- Travels frequently.
- Diagnosed with MS 7 years ago.
- Initially had infrequent exacerbations.
- Treated with oral and IV steroids.

- Two years ago: developed bilateral lower extremity weakness, a T10 sensory level, forgetfulness.
- Treatment with an injectable disease-modifying therapy (DMT) was initiated.
- Currently, Jenna does not feel she is getting better.
- As a result, she administers DMT injections intermittently.

- Although she has difficulty with self-injection, she will not ask her family for assistance.
- Over time, she has become increasingly anxious and isolated.
- Her social and work relationships have suffered.

# Case Study 2: Jenna Discussion Points

- What is your assessment of this patient?
- How can we help?
- What would be your initial recommendation?
- Follow-up?

- What are some treatment options to consider for Jenna?
- What counseling and education points are necessary to cover for other treatment options you might consider for Jenna?
- What referrals might be appropriate to consider?
- What follow-up will be necessary?

#### Case Study 3: Belinda

- 28-year old female with a 5 year history of active MS.
- Reports to the clinic with a sudden onset of mild arm weakness and some subtle slurring of speech.
- Started natalizumab 3 years ago.
- One relapse since starting which was 2 weeks after she started first infusion.

### Case Study 3: Belinda

 She is anti JC virus positive and has previously been treated with interferon beta-1a and mitoxantrone.

Other medications include multivitamins and vitamin D.

Recent urine culture is negative for an infection.

## Case Study 3: Belinda Discussion Points

- Is this an MS relapse?
- What are your concerns given the patient history?
- What other tests might you obtain?
- Would you treat with steroids?

#### Case Study 4: Charles

- 31-year old male diagnosed 8 years ago.
- Initially treated with injectable agents; glatiramer acetate (GA) and interferon beta-1a TIW.
- Previously, Charles experienced 1-2 relapses annually.
- Switched to an oral disease modifying therapy for 2 years.
- Since changing therapy, has less than 1 relapse per year.

#### Case Study 4: Charles

- Lives alone and has intermittent assistance from a community program.
- Complains of short term memory problems and difficulty with activities of daily living (ADLs).
- Charles calls early one Friday morning requesting a referral to a dentist.

#### Case Study 4: Charles

 States that he has had facial pain for about one week and needs to see a dentist.

 When questioned by the nurse, it was determined that the pain emanated from his ear to his chin and is worse at night.

## Case Study 4: Charles Discussion Points

• What is your assessment?

What treatment should be initiated?

Does the patient need a dentist?

• MRI?

- 46-year old woman was diagnosed in 1992 and presents for further help in your office.
- Initially, she experienced a relapsing-remitting course with mild and infrequent exacerbations.
- Several years later, she had a severe attacks that left her with paralysis of both legs and bladder retention.

- After discharge from a rehabilitation facility, she required a walker and motorized tricart for mobility.
- She stopped working and is on full time disability and has a limited monthly budget.
- She lives alone and never married, she never had children, but she is very active in the local MS community.

- Current symptom management includes amantidine for fatigue, oxybutynin chloride for bladder urgency and frequency, methanamine hippurate to improve urine acidity and takes gabapentin for pain.
- She and has counseling, rehabilitation, and support group services to help her cope with her ongoing disability.

 Donna presents at your practice requesting treatment with an oral disease modifying therapy since her support group has urged her to consider new treatments.

The group stated that "it is not too late for you."

## Case Study 5: Donna Discussion Points

- What would you recommend at this time?
- How can you help this patient realistically?
- What other treatment options should be considered?

### **Summary: Nursing Implications**

- Select among appropriate treatment options when considering patient disease prognostic factors such as: CNS cerebellar or motor tract involvement, objective evidence as seen on MRI lesion burden, and the severity and interval rate of relapse with incomplete recovery and/or disability.
- Consider a careful risk-benefit evaluation in making decisions and identifying optimal treatment choices for an individual patient, in initiating therapy or changing treatment.
- Incorporate MS evidence-based information into practice in determining treatment strategies in managing MS symptoms.
- Maintain awareness of safety monitoring required with some of the newer disease-modifying therapies.

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#### **QUESTION & ANSWER SESSION**

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