CASE STORY - Physiotherapy

The following case story by Pip Davies, physiotherapist, demonstrates the importance and benefits of physiotherapy for MND patients. This case study was drawn from a compilation of several clients to ensure confidentiality.

Sarah was a 52 year old lady who was diagnosed with Amyotrophic Lateral Sclerosis (ALS) type MND in 2014. She had, however, been aware of foot drop on her right side for 2 years prior to her diagnosis. Sarah’s past history included type 2 diabetes, depression and a 30 year history of smoking a packet per day. She continued to smoke throughout her time with the palliative care service. Sarah lived alone and had been previously independently mobile with a seat walker.

Sarah was first assessed by physiotherapy in November 2014. She was admitted to the hospice for respite following a hospital admission for a fall. At this time she was keen to be discharged home and her aims were to be able to transfer independently from bed to wheelchair / commode and to maintain her independence. Sarah did not have a large support network and a key concern for her was not being reliant on others.

Initial physiotherapy assessment identified the following:

- Minimal assistance x 1 person required for all transfers.
- Able to mobilise 20m with a Forearm Support Frame (FASF) and 1 person assist.
- Sarah had decreased knee control bilaterally in stance, decreased right ankle dorsiflexion in swing, mild ataxia and was easily fatigued.
- Sarah had emotional lability and distress around her loss of function.
- Nil current respiratory issues.
- Potential concerns with pushing herself too hard in therapy.

Sarah was keen to remain independent and so was very motivated to participate in physiotherapy. Long discussions ensued to address the issue of the effect of exercise on her MND as ‘there are theoretical reasons to suggest that excess exercise may be deleterious to compromised motor nerves and muscle, but equally there are the normal benefits of exercise on nerve and muscle growth and sustainability’. [1]

Physiotherapy management initially then focussed on maintaining and improving Sarah’s functioning to a level that could allow for discharge home. This included:

- Daily walks with FASF - gradually progressing to 60m indoors and 10m on a gradual slope outdoors.
- Slide board practice to maintain independent transfers.
- A stretching program as well as a strengthening exercise program as is recommended in the early stages of MND. [2]
- Trial of an Ankle Foot Orthosis (AFO) for her right foot drop.
- Trial of an electric wheelchair to allow Sarah to spend time independently in the hospice gardens.
After Christmas, Sarah reported being scared of going home as she had become quite “safe” in the hospice. Nevertheless, Sarah managed two weeks at home, with her daughter’s assistance, in early February 2015 before being readmitted to the hospice as a result of carer stress. At this time, Sarah had deteriorated further and physiotherapy over the next few months included the following:

- Introducing a standing lifter for transfers.
- Compression stockings and elevation of legs for dependent oedema.
- Resting splints to minimise calf muscle contractures.

BiPAP (Bilevel Positive Airway Pressure) was also initiated by the medical team at this time to assist with Sarah’s declining respiratory functioning and it was found to assist her poor sleep, breathlessness and fatigue. [3]

Towards the end of 2015, the hospice staff began to find it more and more difficult to transfer Sarah with the standing lifter. After further physiotherapy assessment and lengthy discussions with Sarah, she reluctantly accepted that she would need to be sling lifted into her electric wheelchair.

A further sign of Sarah’s deterioration was the difficulty she was having clearing secretions. She was able to use Bubble PEP (Positive Expiratory Pressure) to assist with this and although it is not a standard form of MND sputum management, being able to manage this part of her treatment independently was very important to Sarah. Sarah did not reach the stage of requiring such recommended techniques as breathstacking, cough-assist or oropharyngeal suction. [2]

Sarah continued to deteriorate until her death in early 2016. In the final weeks of her life, the role of physiotherapy was to assist with symptom relief. For Sarah, this included providing a neck collar for head support, Frottee tubular compression for her leg oedema and monitoring her chest. Throughout this time, it continued to be a priority for Sarah to maintain some control over her body and disease. Up until the last 3 days of her life she was able to go outside independently and spend time in the sun in her electric wheelchair enjoying a cigarette.

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References

