Strategies for Frontal Deficits and Impulsivity in PSP and CBS

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Disclosures

• Lectured for UCB and GSK on atypical Parkinsonism

• Drug trials for Biogen, Pfizer, TauRx, Novartis and Laboratoire Français de Fractionnement et de Biotechnologies
Aims

• Understand the underlying causes for impulsivity and frontal deficits in PSP and CBS
• Ability to recognise these deficits in practice
• Strategies and considerations in the management of these symptoms
First a test for you.....

• Can YOU remember this address:

  Harry Barnes
  73 Orchard Close
  Kingsbridge
  Devon
Pathology in PSP and CBS

Frontal Deficits

- Echolalia
- Set shifting
- Retrieval
- Social cognition (network)
- Impulsivity
Can you remember the address?
Social cognition

- The ability to interpret what others think or feel
- Includes basic emotion recognition eg. sad, angry
- Extends to more complex interpretations eg. bored, disaffected
- Patients with PSP have difficulties....
Impulsivity

Is a tendency to act on a whim, displaying behaviour characterised by little or no forethought, reflection, or consideration of the consequences.

Collins English Dictionary
Impulsivity

TBI lesion analysis

Basal ganglia

Healthy control VBM


How does this present clinically?
The door bell rings and the patient gets up to answer the door.

When walking along, they suddenly stoop down to the floor to pick something up.

Over filling the fork, over filling their mouths with food.
Cramming

Smaller plate

Smaller cutlery

Prompting
Case Study

- 76 years old female (2014)
- Living at alone at home
- Started falling in 2014
- Gait is slow
- Difficulty retaining information and concentrating
- Slower in conversation
- Slightly impulsive
- Coughing and choking at most meals
- Falling back into chair multiple times on sit to stand
- Blepharospasm and sensitivity to light
- Initially diagnosed with PD, this changed to Parkinsonism due to rapid deterioration, lack of response to medication, then re-diagnosed with PSP in 2016.
Problems

• Poor balance
• Frequent falls
• Impulsivity
• Communication
• Dysphagia
• Light sensitivity
Plan

- Refer to appropriate specialists — SLT, PT, OT, Dietician, SW

- Allow time for communication
Physiotherapy

• Mobility aids

• Sit to stand/ hip hinge

• Balance, gait, turning

• De-clutter
PD nurse review - 2015

- Falling frequently
- Falling to the left and backwards
- Has walking aids but tends to forget them
- Slow saccades vertically
- 7 falls in July, 35 falls approximately this year
- Refer to Physio, bone protection medication prescribed, pendant alarm in place, consider intercom so she doesn’t need to get up for the door.
- POC 3 visits per day
Things to consider

• Intercom pros v cons
• Carer education on PSP- impulsivity
• Bone protection
Neurologist review - 2016

• Patient has moved into a RH
• Cries easily
• Gets cross very quickly
• Gets very tired
• Mobile with heavy wheeled walker
• MMSE 27/30
• ACE-R 69/100
ACE-R 69/100

Attention/orientation 18/18

Memory 20/26

Fluency 1/14

Language 21/26

Visuospatial 9/16
Seating

Lower

Tilt in space

Sensors

Prompting
Clinic notes- 2016

“She had a fall a couple of weeks ago while trying to help another resident. Unfortunately this lead to a black eye and a broken nose. She is less able to learn from new information. This means that in situations where she would have normally got up to help, she will continue to do so, despite knowing that she has difficulties with balance and will likely fall.”

Less able to learn from new experiences.
Dear Dr Ghosh,

I am writing to you in desperation with regards to my sister. Since her last visit to you in clinic she has had numerous falls. Two on her nose again, another break plus various bruising ......
Neurologists review- 2017

- Looking into NH placement
- Power of attorney
- High low bed in situ
- Low chair in situ
- Hip protectors considered
- Sensor mats in situ
Beds

Low beds +/- additional floor mattress

Sensors
A&E visits as a result from falling in 2017-2018
The Mental Capacity Act 2005 is about making sure that people have the support they need to make as many decisions as possible.
Conclusion

• There is no one solution in managing the complexity of impulsivity and frontal deficits.

• MDT involvement and individual assessment are important in helping to manage these complex issues.

• We need educate the family and carers about these features of the disease.
References

• REFINE (REducing falls In in-pateNt Elderly) using bed and bedside chair pressure sensors linked to radio-pagers in acute hospital care: a randomised control trial. O. Sahota et al Age and Aging, Volume 43, Issue 2, 1 March 2014, pages 247-253

• http://www.alz.org/documents/national/Fallsrestraints_litereview_II.pdf
• Falls prevention interventions in older adults with cognitive impairment: A systematic review International Journal of Therapy and Rehabilitation 22(6):289-296 · June 2015
• What Every social worker, physical therapist, occupational therapist, speech and language therapist should know about PSP, CBD and MSA. Cure PSP
• A guide to PSP and CBS for occupational therapists. PSPA.
• How, and when, can I restrain a patient? D Horsburg BMJ vol 80, issue 939
Thank you

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