disorder that typically presents in early adulthood, and whose clinical features include chorea and dystonia with involuntary lip, cheek and tongue biting. Some patients also have seizures. Treatment for ChAc is symptomatic. A small number of ChAc patients have been treated with bilateral deep brain stimulation (DBS) of the globus pallidus interna (GPi), and we now present an additional case. **Methods:** Patient chart, functional measures, and laboratory findings were reviewed from the time of ChAc diagnosis until 6 months after deep brain stimulation (DBS) surgery. **Results:** Here we present a case of ChAc in a 31 year old male positive for VPS13A gene muations who presented with chorea, tongue biting, dysarthria, weight loss, and mild cognitive dysfunction. GPi-DBS using monopolar stimulation was associated with significant improvement in chorea and dysarthria. **Conclusions:** This case adds to the current state of knowledge regarding the efficacy and safety of bilateral GPi-DBS for symptomatic control of drug-resistant hyperkinetic movements seen in ChAc. Controlled trials are needed to better assess the impact of DBS in ChAc.

P.013

Needs assessment of rural telemedicine care for Parkinson disease in British Columbia

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Background: People with Parkinson disease (PD) face progressive mobility loss, but medical treatment is dependent on clinical assessment and examination. Regional patient and physician density patterns pose further problems to accessing care. Telehealth may improve access particularly among rural populations, but an approach to this problem should consider patient perspectives. **Methods:** We surveyed and conducted a focus group for people with PD and their caregivers. Questions assessed perceptions of barriers to neurological care and use of telehealth for PD management. Thematic analysis was performed to classify qualitative data. **Results:** 18 individuals completed the survey and 7 parties joined the focus group. 52% of participants travel >50km for neurologist appointments (range = 59 to 842km). Perceived barriers include cost and difficulty of travel, wait times, lack of interdisciplinary healthcare and deep brain stimulation outside large cities. 80% of participants (95% C.I. 64-96%) would likely or very likely use telehealth for follow-up neurologist appointments if proven as good as in-office visits. Participants associated telehealth with improved quality of care, improved access to care, and cost savings. **Conclusions:** This sample of people with PD and their caregivers report willingness to access care via telehealth to reduce perceived cost and travel for specialty care.

P.014

OnabotulinumtoxinA-treated cervical dystonia patients report improvements in health-related quality of life in a prospective, observational study: POSTURe

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Background: The clinical benefit of onabotulinumtoxinA in cervical dystonia (CD) is proven, but its impact on health-related quality of life (HRQoL) is largely unknown. **Methods:** Multicentre, prospective, observational study (NCT01655862) of CD patients treated with onabotulinumtoxinA at physician discretion (maximum 9 treatments). Patient-reported HRQoL outcomes and work productivity were collected at baseline, 4- or 8-weeks post-treatment, and final visit (prior to 9th treatment). OnabotulinumtoxinA utilization was assessed. **Results:** 61 patients received ≥1 treatment; 74.1% completed all treatments. Average total dose/treatment was 186.9U. The splenius capitis was most frequently treated (100% patients). Average pain numeric rating scale score was significantly improved at final visit (2.1) versus baseline (4.6; p<0.001) as were CD impact profile questionnaire-58 scores across all subscales (head/neck symptoms, pain/discomfort, sleep, upper limb activities, walking, annoyance, mood, psychosocial functioning; all p<0.001). Fewer patients (16.0%) reported loss of work productivity at final visit versus baseline (48.4%). 121 AEs were reported by 67.2% patients. 62 AEs in 44.3% patients were treatment-related, the most common being neck pain (18%). One serious AE (not treatment-related) was reported by 1 patient. No new safety signals were identified. **Conclusions:** Long-term use of onabotulinumtoxinA is a safe, effective treatment for CD, improving HRQoL and work productivity.

P.015

Long-term progression and prognosis in different subtypes of Parkinson's disease: validation of a new multi-domain subtyping method

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Background: Parkinson's disease (PD) varies in clinical manifestations and course of progression from person to person. Identification of distinct PD subtypes is of great priority to develop personalized care approaches. We aimed to compare long-term progression and prognosis between different PD subtypes. **Methods:** Data on 421 individuals with *de novo* early-onset PD was retrieved from Parkinson's Progression Markers Initiative (PPMI). Using a newly developed multi-domain subtyping method (based on motor phenotype, RBD, autonomic disturbance, early cognitive deficit), we divided PD population into three subtypes at baseline: "*mild motor-predominant*", "*Diffuse malignant*" and "*Intermediate*". Rate of global progression (mixed motor and non-motor features) and developing dementia were compared between the subtypes. **Results:** Patients with "*diffuse malignant*" PD experienced 0.5 z-score further worsening of global composite outcome (*p*=0.017) and 2.2 further decline in MOCA score (*p*=0.001) after 6-years of follow-up. Hazard for MCI/dementia was significantly higher in "*diffuse malignant*" (HR=3.2, *p*<0.001) and "intermediate" (HR=1.8, *p*<0.001) subtypes. Individuals with "*diffuse malignant*" PD had the lowest level of CSF amyloid-beta (*p*=0.006) and SPECT striatal binding ratio (*p*=0.001). **Conclusions:** This multi-domain subtyping is a valid method to predict subgroups of PD with distinct patterns of long-term progression at drug-naïve early-stage with potential application in real-life clinical practice.