Dopamine is a neurotransmitter which is diminished in Parkinson's due to the gradual loss of the dopamine producing cells within the substantia nigra in the mid-brain. In addition to regulating movement dopamine plays an important role in the reward system within the brain. The medical treatment for Parkinson's is to replace the missing key chemical (dopamine). There appears to be a connection between the medications used and Impulse Control Disorder (ICD) and some individuals may develop this side effect. Generally the medications known as dopamine agonists are considered a higher risk for ICD than levodopa.

ICD is defined as the inability to resist an impulse, drive or temptation. Risk factors for the development of ICD in Parkinson’s include:

- History of addictive/compulsive behaviour
- Young Onset Parkinson’s
- Male gender

ICD may take the form of:

- Compulsive shopping
- Hypersexuality
- Overeating
- Pathological (addictive) gambling
- Punding - ‘compulsive hobbyism’

Most health professionals involved in the management of people with Parkinson’s will screen for ICD particularly if dopamine agonists are prescribed.

Compulsive Shopping

This is a preoccupation with shopping and purchasing. The person may experience an irresistible urge to purchase more than they need or can afford. Often the urge may be focused on a particular item, for example, pens.

Awareness of the potential problem and reporting to the treating medical specialist is recommended.

Hypersexuality

The link between hypersexuality and Parkinson’s medications has been widely accepted and documented. Hypersexuality is defined as being preoccupied with sexual feelings and thoughts. Sexual impulses become more intense, spontaneous and compulsive – this can cause distress to both the person and their partner.

It is essential to realise that this behaviour is abnormal and prompt help should be sought from the treating medical specialist. Medication adjustment may address the problem.

Overeating

Compulsive overeating may occur especially overnight if sleep disturbances occur. If weight gain occurs then overnight behaviour should be investigated.

People with Parkinson’s often enjoy a ‘sweet tooth’ and this can add to the potential for overeating. Discussion with the treating medical specialist and referral to a dietician is advised.
IMPULSE CONTROL DISORDER AND PARKINSON’S

Pathological (addictive) Gambling

Pathological gambling is defined as the inability to resist gambling impulses despite severe consequences. The increased opportunity to gamble online heightens the impact of pathological gambling.

Acknowledging the gambling as a problem is essential. Voluntary exclusion from gambling venues is an option. Open communication with spouse/partner may result in limiting access to finances.

Discussion with the treating medical specialist is vital. Adjustment of medications often corrects the problem.

Punding – ‘Compulsive hobbyism’

Punding or ‘compulsive hobbyism’ may be defined as an intense fascination with repetitive manipulations of technical equipment, continual handling and sorting of common objects and hoarding. Punding can lead to significant social and occupational imbalance.

Recognising this behaviour and bringing it to the attention of the treating medical specialist is essential.

The above behaviours are most commonly associated with dopamine agonists. The adjustment or withdrawal of dopamine agonists may be difficult for the person with Parkinson’s. Withdrawal may result in a decrease in symptom control and a desire for reintroduction of this group of medications. Increasing the levodopa dose to compensate may not address the effects of the withdrawal.

Dopamine Dysregulation Syndrome

In addition to ICD, Dopamine Dysregulation Syndrome (addiction to Parkinson’s medication) is a rare condition affecting less than 4% of people with Parkinson’s. Often a person with this syndrome will take increasing doses of medication. They may show aggressive outbursts in addition to the behaviour of ICD previously described. These behaviours usually occur during the ‘on’ phase of Parkinson’s (when the medication is working). In addition they may present as being euphoric.

From the initial introduction of Parkinson’s medication it is essential to follow the directions of the treating medical specialist. Avoidance of self-prescribing is crucial to prevent Dopamine Dysregulation Syndrome. Young Onset males are more at risk of this syndrome.

As the person may not acknowledge there is a problem, it is vital that family members take note of any overuse of Parkinson’s medications and abnormal behaviours.

Treatment strategies may involve a review of Parkinson’s medications and must be done under the guidance of the treating medical specialist.

For further information contact your state Parkinson’s organisation:
Freecall 1800 644 189 www.parkinsons.org.au

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