

Parkinson's Disease Information Sheet 2.4

Oral Health and Parkinson's Disease

Idiopathic Parkinson's disease (Pd) is a progressive neurological condition which is characterised by motor (movement) and non-motor symptoms.

Oral health in Pd is an under-researched topic. Frequently, people with Pd have cravings for sweet foods. The importance of good oral health must not be underestimated. Pd can affect the mouth and subsequently oral health in several ways:

- Xerostomia (dry mouth)
- Sialorrhea (drooling)
- Ill-fitting dentures
- Effects of medication
- Tremor and bradykinesia (slowness of movement)
- Dyskinesia (involuntary movements)
- Poor lip closure

Xerostomia

Saliva maintains hygienic moisture, preventing bacterial growth, moistens food as part of the digestive process and assists with maintaining healthy gums and teeth. In Pd, xerostomia (dry mouth) is related to the disease process and is also a common side effect of Pd medications and other medications. Xerostomia is detrimental to oral hygiene causing decay that encircles the tooth. Such decay cannot be filled and the tooth must be removed. In addition, mouth ulcerations and poor digestion of food are common. Xerostomia can add to existing changes in articulation.

Sialorrhea

Sialorrhea (drooling) is commonly experienced in Pd and is related to poor mouth closure, reduced frequency of swallowing and poor posture rather than an over-production of saliva. As a result, saliva accumulates in the mouth and overflows. Sialorrhea can occur overnight even when xerostomia is experienced during the day. Saliva can at times be thick and "ropey".

Ill-fitting Dentures

Weight loss which occurs frequently in Pd can lead to changes in mouth structures and subsequently ill-fitting dentures. The continual movement of the dentures can cause mouth ulcers leading to pain and infection. Xerostomia affects denture control as saliva assists in holding dentures in place.

Effects of Medication

Most Pd medications will have an anti-cholinergic effect including xerostomia. Other medications including those used to treat depression and bladder control may have a similar side effect.

Levodopa oxidizes easily. If this medication is in prolonged contact with oral structures for example, teeth discoloration will occur.

Tremor and Bradykinesia

Tremor, a common symptom of Pd, may affect the tongue and lips. This can be disconcerting. In addition repetitive automatic movements for example, teeth brushing and flossing can be disrupted by bradykinesia leading to ineffective oral hygiene. Poor coordination of muscles of the tongue and throat may affect rinsing.

Dyskinesia

Dyskinesia (involuntary movements – a side effect of levodopa) is frequently seen to affect the lips and mouth. This can be misconstrued as inappropriate smiling and may interfere with eating and oral hygiene.

Poor Lip Closure

Inadequate lip seal is frequently seen in Pd and can result in sialorrhea as previously discussed. Overnight, poor lip closure will result in mouth breathing and xerostomia or conversely, sialorrhea.

Oral Hygiene Strategies

- Xerostomia – frequent sips of water may assist with this problem in addition to avoiding dehydration. Avoid alcohol and smoking as they worsen xerostomia. Some mouth washes contain alcohol which adds to the problem. Specialised products, such as Biotene toothpaste, mouth wash, chewing gum and artificial saliva gel, may be of benefit. Avoid extended use of lollies as this leads to further decay.
- Sialorrhea – conscious attention to swallowing more frequently will assist as will conscious attention to lip closure. Some medical specialists may recommend the use of anticholinergic medications to address this problem.

If sialorrhea does not respond to simple measures, some specialists will recommend Botox injection into the salivary glands. This may provide relief for up to four months. However, as in the case of all drugs, side effects are possible.

In extreme cases, radiation treatment may be considered.

“Ropey” saliva may respond to the use of papaya extract. Please note that this must not be used in conjunction with Warfarin.

- Ill-fitting dentures – regular dental review is essential to ensure best fit. Remove dentures at night to give the mouth a recovery period.

- Effects of medication – monitor for possible side effects to medication and report to treating specialist.

If levodopa is chewed or liquid Sinemet® or Madopar Rapid® is used attention to oral hygiene or at least rinsing of the mouth is recommended following each dose. This will assist in preventing discoloration of the teeth due to oxidization.

- Tremor and bradykinesia – tremor is often the least responsive symptom to medication.

Using an electric tooth brush will assist with repetitive automatic task problems and bradykinesia. Avoiding dual tasking will also help. The use of a straw will assist with rinsing.

An occupational therapist can review daily activities that are affected by tremor or bradykinesia and provide helpful strategies.

- Dyskinesia – noting the time and frequency of involuntary movements will assist the specialist to adjust medications.
- Poor lip closure – conscious attention to lip closure is important. A speech pathologist will assist with appropriate exercises.

Prompt assessment by a speech pathologist is recommended to avoid or manage the issues which may interfere with oral hygiene. Regular dental check-ups are essential.

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