PATIENTS WITH EARLY MORNING AKINESIA SHOULD HAVE AN APOMORPHINE INJECTION AS THEIR FIRST DAILY DOSE: NO

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For treating early morning akinesia several aspects have to be taken into account: the stage of the disease of the patient, nocturnal disabilities, the last medication at bedtime and any other long-acting medication during daytime.

Early morning akinesia is a problem in moderate to advanced PD patients with either wearing-off symptoms or motor fluctuations. It reflects the dopaminergic nocturnal decline with insufficient nighttime storage or refreshing of the dopaminergic system during nighttime and sleep. Therefore first strategy should be increasing the nocturnal dopaminergic storage with appropriate bedtime medications to improve both, the nocturnal akinesia that those patients mostly suffer from and the early morning akinesia. Early studies of the UK Madopar Study Group could not show a significant benefit for specific sustained release levodopa at night, but this trial showed that any levodopa preparation at bedtime improved nocturnal and early morning akinesia. Clinical experience seems to teach us differently, but further trials are lacking.

Recent studies on sustained release dopamine agonists such as Ropinirol (Requip Modutab) or Rotigotine transdermal patch significantly improved nocturnal discomforts including akinesia and early morning akinesia and dystonia (Pahwa et al 2004, Trenkwalder et al 2008), when measured by a subjective sleep rating scale (PDSS). Apomorphine use has been excluded in those trials.

A further possibility is the use of immediate-release Levodopa (i.e. Madopar LT), a formulation, that is widely used in PD patients. Although no large studies are available PD experts are well aware, that PD patients refuse to stop their morning dose of Madopar LT or similar levodopa preparations, even in clinical trials, and even when they are offered apomorphine shots. Taking one tablet of soluble levodopa is still possible, even when during severe akinesia, whereas an apomorphine shot is difficult to place, not talking about getting the apomorphine fresh out of the refrigerator at 5.30 in the morning, when no help is available. Soluble levodopa also overcomes the problem of slow resorption, by gastric emptying disturbances. When drinking 1-2 glasses of water with the levodopa, resorption is fast and almost reaches apomorphine shots – but without the side effect of possible blood pressure drop.

In fluctuating PD patients, the half-life of 100mg levodopa maybe also longer than one apomorphine shot, another advantage to the injection.