

## Debilitating consequences of drooling

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A 71-year-old man with a 13-year history of idiopathic Parkinson's disease (PD) was referred to us because of severe and intractable drooling. His complaints started 4 years earlier with nocturnal drooling, but this had progressed to profuse drooling throughout the day. By that time he also suffered from severely impaired swallowing and severe hypokinetic dysarthria. The corners of his mouth were persistently wet, and this had produced a debilitating dermatitis in the perioral region, which is illustrated in Fig. 1. At investigation we observed erythematous plaques, in part sharply demarcated. The lesions showed some rhagades and mild scaling. Moreover, despite use of handkerchiefs, saliva was constantly dripping onto the patient's clothes and feet, destroying the leather of his

shoes and necessitating him to purchase new shoes every 3 months. Symptomatic treatment with anticholinergics had been tried, but this was stopped because of systemic side effects. Injection of botulinum toxin into the submandibular and parotid glands effectively suppressed saliva production, and the perioral skin lesions improved considerably.

This case history underscores that drooling can have a tremendous impact on the quality of life of affected patients [3]. The exact pathophysiology remains to be determined, but is more likely related to reduced automatic swallowing frequency than to increased production of

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**Fig. 1** Prior to botulinum toxin injections into the salivary glands, there was a marked perioral dermatitis

saliva [4]. Various symptomatic treatments are available, aiming either to reduce saliva production (botulinum toxin, anticholinergics, or radiotherapy over the salivary glands) or to improve the quality and frequency of swallowing [1, 2].

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