



## Commentary on “Prevalence of Oropharyngeal Dysphagia in Geriatric Patients and Real-Life Associations with Diseases and Drugs”: Do we need a Dysphagia Risk Scale as a Preventive Patient Safety Concern? And a Regulation for Obligatory Medication Review in Oropharyngeal Dysphagia?

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### DESCRIPTION

Oropharyngeal Dysphagia (OD) not only is a resultant of central neurological diseases or local injuries. Moreover, we have shown that a number of different drug groups is associated with impairment of the complex swallowing act and thus per se may induce or exacerbate OD in a cumulative and iatrogenic manner, such as antipsychotics, benzodiazepines, antidepressants, antiepileptics, and anticholinergics [1].

Iatrogenicity implies reversibility of OD by discontinuation of the iatrogenic drug. This has been documented for almost half a century with numerous impressive case reports as well as some studies on underlying pathophysiologic mechanisms in the literature [2-11]. And the OD risks are even identified and specified in the drugs' Summaries of Product Characteristics (SmPC) themselves which describe the properties and the officially approved conditions of use of a drug and form the “basis of information for healthcare professionals on how to use the medicine safely and effectively” [12]. But they seem to be mostly neglected. Accordingly, the results of more than 54,500 of my individual medication reviews are of great concern.

Compounding the problem is the fact that the patient's medication list is not regularly integrated into the OD diagnostic process, if at all, in the sense of a medication review to analyze drug-related OD adverse effects, so far. Comprehensive individual pharmacotherapy management (IPM) [13] should become a mandatory routine measure in future OD diagnostic standards and in survey of elderly patients, as it has already

been shown to contribute to significant reduction of e.g., delirium [13]. Given the aging population worldwide that is administered a wide range of drugs with identified OD potential and at the same time high OD prevalence, the postulate of an IPM becomes increasingly important. The prevalence of OD in the elderly admitted to a geriatric acute care hospital was nearly one third. We must prevent drug-related further cumulative deterioration in primarily disease associated OD patients, such as stroke patients, and prevent drug-induced OD in unaffected elderly patients. The patient burden and socioeconomic costs of OD are immense [14,15]. Therefore, no one should be placed on a PEG feeding tube without having their medication list reviewed and optimized for their OD risks; and furthermore, all patients with feeding tubes should be regularly tried to become safe from these respective medications in terms of primary, secondary, tertiary, and quaternary OD prevention. To make significant progress in improving patient and drug safety, we need to introduce appropriate regulatory policies.

The commonly accepted presbyphagia as a rather new entity of OD in elderly patients may also be partly related to medications. Xerostomia, dry mouth, is a typical indicator and very frequent adverse drug effect resulting from a broad spectrum of drugs prescribed to elderly patients; even non-psychotropic agents, such as diuretics, may enhance the risk. In addition to OD induced by anticholinergic effects, a wide range of psychotropic drugs pose a risk for coordination of swallowing and reflex nervous responses. Therefore, the diagnosis or the

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suspected diagnosis of medication-associated OD should be ICD-classified to raise awareness of this hitherto completely neglected and underdiagnosed disease entity and to assure, that drug-induced or -enhanced OD are counteracted analogously simply and adequately by seeking drug withdrawal and alternatives before further invasive diagnostic or even invasive therapeutic approaches are implemented.

Having a dysphagia risk scale with the most important risk medications, which is mandatory to review as part of the OD diagnostic process, would provide a tool to close the current diagnostic gap in terms of medication causality that can be eliminated in a selectively targeted manner.

In a same vein, we must always take responsibility for the individual medication analysis of the patients under our care and additionally consider the medication risks in the evaluation of all kind of geriatric assessments, since, for example, psychotropic drugs influence a patient's reactivity and thus also the assessment results. We owe this not only to the patients entrusted to us, but also to the entire healthcare system.

Particularly in view of the polypharmacy of increasingly aging and multimorbid patients, the individual medication review with optimization as a preventive instrument should already be part of an overall therapeutic concept, which urgently needs to be permanently established and thus demanded and supported by the health insurance funds as part of the much cited holistic patient care. With reference to presbyphagia or patients suffering from cerebral stroke events, it is important to try to withdraw or to regularly re-evaluate risk/benefit ratio for each of these substances, since it is precisely these patients who are exposed to an increased risk due to the groups of drugs frequently administered to them.

- Thus, for appropriately detailed and safe inclusion in routine OD care and as a directed health communication strategy, we recommend establishing a dysphagia risk scale for early prevention and elimination of iatrogenic risk as the critical step in patients prior to placement of a feeding tube with its inherently associated significant loss in quality of life. As a platform for strategic health communication, we hope that the commentary on OD in this journal will receive widespread readership, attention, agreement, and support.
- OD and its consequences concern a global health field and an increasing problem of diagnostic accuracy in the health care of the aging population with polypharmacy. Therefore, health policy should be involved in enacting appropriate health information management with the OD risk scale and a mandatory IPM risk analysis for adverse drug reactions from polypharmacy. OD and its consequences not only place a personal burden on patients, but also press public health financing to a high degree [15] and perspective increasing.

Health promotion in the elderly requires the establishment of this diagnostic concept, always including medication analysis, to avoid and eliminate all risks of polypharmacy in terms of patient safety, a growing concern that the WHO keeps emphasizing and increasingly treats as a challenging issue [16-18].

To conclude, the completer of medication-associated OD into ICD classification, an integrative OD risk scale that considers

all associated and cumulative medication risks in addition to diseases and an obligatory individual pharmacotherapy management to exclude drug-induced complications may present the important support for physicians and speech therapists in various neurological and rehabilitative settings, especially to prevent iatrogenic OD and to optimize OD management.

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## CONFLICT OF INTEREST

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