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THE TOOTH OF TIME

Procedural sedation in nursing homes for frail, elderly patients

Clemens Roelof Merlijn Barends

The tooth of time

Procedural sedation in nursing homes for frail, elderly patients

PhD thesis

to obtain the degree of PhD at the
University of Groningen
on the authority of the
Rector Magnificus Prof. C. Wijmenga
and in accordance with
the decision by the College of Deans.

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The tooth of time
Procedural sedation in nursing homes for frail, elderly patients

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TABLE OF CONTENTS

Preface	9
Chapter 1 Introduction and background	11
Chapter 2 Drug selection for ambulatory procedural sedation.	23
Chapter 3 Dexmedetomidine versus midazolam in procedural sedation. A systematic review of efficacy and safety.	33
Chapter 4 Intranasal dexmedetomidine in elderly subjects with or without beta blockade: a randomised double-blind single-ascending-dose cohort study	49
Chapter 5 Moderate to deep sedation using target-controlled infusions of propofol and remifentanyl: adverse events and risk factors. A retrospective cohort study of 2937 procedures.	71
Chapter 6 Intranasal midazolam for the sedation of geriatric patients with care resistant behaviour during essential dental treatment; an observational study.	89
Chapter 7 Pharmacokinetic and pharmacodynamic profile of midazolam intranasal spray in elderly volunteers	101
Chapter 8 Summary	109
Chapter 9 Discussion	115
Chapter 10 Nederlandse samenvatting	123
Chapter 11 References	129
Chapter 12 Publications	143
Chapter 13 Curriculum Vitae Clemens Barends	149
Chapter 14 Dankwoord	153

PREFACE

When Stephen Fry asked the panel of the season 10 QI-episode 'Joints' what Glaswegian women lost on their wedding night in the Victorian age¹, he referenced a custom that, also in the Netherlands, has lasted well into the first half of the 20th century. The correct answer was 'all their teeth' because in those days it was not uncommon for young women to receive a set of full dentures as a wedding gift. This gift would ensure a flawless, pearly white smile for the rest of their lives and it relieved the husband-to-be from the expenses of dental care for the entire marriage. Steven Fry could ask this as a QI-question because the answer is no longer common knowledge and because a set of dentures is no longer considered a proper wedding gift. As a result increasing numbers of elderly people grow old with their own teeth, or what's left of them.

The loss of this tradition, and the resulting pain and suffering from toothache in nursing homes brought dentist dr Anita Visser in January 2014 to the department of anesthesiology of the University Medical Center in Groningen. She was looking for a solution for a problem she had been facing for many years during her work as a gerodontologist, a dentist specializing in dental care for elderly people. Dr Visser worked in psychogeriatric institutions, nursing homes where people with dementia live and are cared for in the last days, months or years of their lives. She saw that in these nursing homes more and more residents still had their own teeth. The dementia they were suffering from came with a growing lack of self-care and care-seeking behaviour, and an increasing difficulty to perform basic tasks such as brushing their teeth. Because dementia, or major neurocognitive disorder (MND), is often accompanied by other disturbing symptoms, many of her patients had developed fear and agitation and this led to what is called care resistant behaviour: refusal of care, resisting care and even aggression towards well-meaning caregivers.

It is not hard to imagine the problems faced by a dentist who has to put his or her fingers between the teeth of an adult who is actively trying to prevent him or her from doing so. Dr Visser had pictures of a dentist's workstation destroyed by the thrashing of a patient and videos of patients crying in pain from their teeth while simultaneously fighting and biting, trying to prevent her from relieving the pain inducing abscess or removing the rotting, aching tooth.

No effective and reasonable measures were available to relieve this anxiety and aggression to be able to perform the highly needed dental care. Hospital visits to provide general anesthesia were out of the question and the tablets of midazolam, the only alternative provided by current guidelines, had proven to be very ineffective. And thus the search was on. The following studies are the result of the search for a safe and effective sedation method that can be used to relieve the fear and agitation of elderly MND patients during necessary dental or medical treatments in the comfort of their own nursing home.