

# Small-Gauge Vitrectomy for Diabetic Retinopathy

Ulrich Spandau  
Zoran Tomic



Springer

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ISBN 978-3-319-14786-4  
DOI 10.1007/978-3-319-14787-1

ISBN 978-3-319-14787-1 (eBook)

Library of Congress Control Number: 2015934365

Springer Cham Heidelberg New York Dordrecht London  
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## Preface

Diabetic retinopathy is one of the biggest challenges for a vitreoretinal surgeon. The challenge is twofold: on the one hand, in terms of the complicated surgery and on the other hand in terms of the sheer volume of patients. Today there are 350 million people with diabetes and in 2035 there will be 600 million. The fastest growth is not in industrialized countries but in developing countries and especially in India and China.

The lack of medical care in these countries and the immense volume of patients lead to very advanced cases of diabetic retinopathy with tractional retinal detachment, which often ends in blindness. A well-timed medical treatment can prevent the progression of the difficult disease. In this book we demonstrate, step-by-step, how to treat a diabetic eye and especially how to operate on a tractional retinal detachment.

Vitreoretinal surgery is developing rapidly. Small-gauge vitrectomy is transforming vitreoretinal surgery into a much safer and less traumatic surgical procedure. We are convinced that small-gauge vitrectomy will become the gold standard for vitrectomy worldwide; including diabetic retinopathy. It will be as safe and reliable as phacoemulsification is today.

Three factors are essential for high standard vitreoretinal surgery:

1. Correct assessment
2. Surgical skill
3. Optimal equipment and technique

Correct assessment is acquired with time and experience; surgical skills are part talent and part rigorous training. Optimal equipment and technique are almost the most important factors. Every pathology can be operated on with several techniques. A detachment can be operated with buckling surgery or with vitrectomy, a dislocated IOL can be repositioned with scleral fixation, intrascleral fixation, iris fixation and so on. And this is especially true for the diabetic eye. Learn as many techniques as possible; it will improve surgical outcome immensely. The successful treatment of diabetic retinopathy requires the most modern medications, the best technical equipment and state-of-the-art surgical technique.

Diabetic retinopathy is surgically very demanding because the surgeon operates on an inflamed and vascular active tissue. The two essentials for success are:

1. Stepwise surgery
2. Bimanual vitrectomy

In this book we demonstrate 23G, 25G and 27G vitrectomies. Learn as many techniques as possible; it will improve surgical outcome immensely. We describe the surgery step by-step, just like a recipe in a cookbook with the ingredients first and then the step-by-step preparation. If these “recipes” are followed, these pathologies will be mastered. All steps are visualized with pictures and short videos.

We wish every reader, may he or she be a beginner or an advanced surgeon, to enjoy reading this book and watching the surgical videos. Included are two DVDs with a large amount of surgical videos with commentary. They begin with easy techniques, continue with advanced pathologies and end with 13 case reports. Our endeavour is to inspire more people to master the management of the diabetic eye.

Uppsala, Sweden

Ulrich Spandau  
Zoran Tomic

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## Acknowledgements

I would like to thank my wife Katrin and my children Maximilian and Moritz for their patience and moral support during my work on this book.

Uppsala, Sweden

Ulrich Spandau





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## Acknowledgements

I would like to thank my daughters, Gaja and Mina, for all the happiness and joy they gave me since they were born. Their love inspired me to work on this book as well.

Many thanks to Milivoj Bogunović from "Miloš" Eye Clinic, Belgrade, for his contribution in editing movies and taking photographs for this book.

Uppsala, Sweden

Zoran Tomic



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