Skin Cancer after Organ Transplantation
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The SCOPE Collaborative Group

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Foreword

The life-promoting and life-enhancing benefits of solid organ transplantation are a major and fascinating medical advance, but come at the cost of the lifelong immunosuppression needed to prevent rejection of the donated organ. This induction and maintenance of impaired immunological surveillance is paralleled by significant increases in the incidence of specific cancers, of which skin cancers are numerically way out in front. Prolonged waiting times for organ transplantation, an increasing average age of recipients, and the improving long-term graft and patient survival are closely related to this trend towards steadily increasing rates of post-transplant malignancies and have shifted the concerns of the global transplant community towards the possibilities of post-transplant cancer.

Already the most common cancer in fair-skinned populations, keratinocyte skin cancers are increased a further 100 fold in organ transplant recipients.

Individual high-risk patients demonstrate accelerated carcinogenesis and may develop very large numbers of (predominantly) squamous cell carcinomas, tumours that are more likely to behave aggressively or metastasize in the context of a suppressed immune system.

This book explores the pathogenesis of transplant skin malignancies, including the immunological basis and contribution from specific drugs. Experts in the field recommend management strategies for preventing and treating transplant skin malignancies, with always an emphasis on a multidisciplinary approach. As scientists and clinicians strive together to develop effective pathophysiological concepts and clinical strategies in the face of this accelerated carcinogenesis, there is a real opportunity not only for advances in the treatment of transplant-related skin malignancies but also for translating these findings into effective skin cancer control in the general population.

Following the age of striving for sufficient prevention of acute rejection by developing ever more effective immunosuppressive agents, transplant medicine now has to face the challenge of direct and indirect consequences of lifelong impaired immunity. All disciplines in medicine are invited to contribute their knowledge, innovation, and strategies to aid transplant medicine in the rewarding struggle against malignancies in organ transplant recipients.

Peter Neuhaus
Acknowledgements

The management of skin cancer in organ transplant recipients is an evolving medical speciality, influenced by intensive clinical and basic research efforts in recent years, and inspired by the escalating burden of transplant-associated skin malignancies.

This monograph shall serve as an effective resource for an interdisciplinary readership and aspires to translate insights from basic skin cancer research into the practical steps in skin cancer prevention, diagnosis, and management as it specifically relates to organ transplant recipients. New diagnostic and therapeutic standards are included and commented on. Separate chapters have been devoted to skin cancer prevention and to the essential role of clinical studies in providing an evidence base and in improving treatment outcome.

The clinician will find interdisciplinary, personal experiences together with new concepts for his daily interaction with organ transplant patients.

We are indebted to our co-editors: Sylvie Euvrard, Charlotte Proby, Jan-Nico Bouwes Bavinck, Ed Geissler, Paul Harden and Jaques Dantal for their excellent cooperation and endeavour in producing this monograph. We are indebted to Petter Gjersvik for his invaluable editorial advice and skilful contribution to many of the topics presented herein.

The editors would like to thank all authors for their outstanding contributions to this monograph and for their interest and endeavour in the field of transplant oncology.

The publication of this monograph would not have been possible without the dedication, hard work and enthusiasm of the project coordinator, Birgit Hinrichs.

The skin cancer burden in organ transplant recipients is a growing challenge for us all.

Berlin, Germany

Eggert Stockfleth
Claas Ulrich
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