Clinical Cases in Dermatology
Series Editor: Robert A. Norman

Sharad P. Paul
Robert A. Norman *Editors*

Clinical Cases in Skin Cancer Surgery and Treatment

Springer

Clinical Cases in Dermatology

Series editor
Robert A. Norman
Tampa, Florida, USA

For further volumes:
http://www.springer.com/series/10473

This series of concise practical guides is designed to facilitate the clinical decision-making process by reviewing a number of cases and defining the various diagnostic and management decisions open to clinicians. Each title will be illustrated and diverse in scope, enabling the reader to obtain relevant clinical information regarding both standard and unusual cases in a rapid, easy to digest format. Each book will focus on the one disease or patient group, and will include fairly common cases to get people to know they are doing things right if they follow the case guidelines. Each will be about 15–20 cases and 100–125 pages total with key pictures for each case. The deadlines/timelines for each title will be short and facilitate rapid publication models.

Sharad P. Paul • Robert A. Norman
Editors

Clinical Cases in Skin Cancer Surgery and Treatment

Springer

Editors
Sharad P. Paul
University of Auckland
Auckland
New Zealand

Robert A. Norman
Dermatology Healthcare
Tampa
Florida
USA

Clinical Cases in Dermatology
ISBN 978-3-319-20936-4 ISBN 978-3-319-20937-1 (eBook)
DOI 10.1007/978-3-319-20937-1

Library of Congress Control Number: 2015949138

Springer Cham Heidelberg New York Dordrecht London

Printed on acid-free paper

Springer International Publishing AG Switzerland is part of Springer Science+Business Media (www.springer.com)

Preface

Clinical Cases in Skin Cancer Surgery and Treatment is designed to be a guide for dermatologists, surgeons, family practitioners, residents and anyone who is engaged in the practice of cutaneous surgery to do with skin cancer. The case-study-based format allows readers to understand planning of procedures and surgical techniques, and the differing cases are designed to relate to different situations that may arise within dermatosurgery practices.

Clinical Cases in Skin Cancer Surgery and Treatment provides relevant surgical and anatomical tips, and finer points of surgical techniques gleaned from the author's experience. Each chapter covers a different type of case, flap or skin graft closure, and will help the attending physician or surgeon in improving their skill levels and knowledge. The author, who has been teaching cutaneous surgery for two decades, provides enough detail to allow residents or family practitioners to develop further competence in the surgical management of skin cancers, while ensures that this book serves as a useful guide. For more experienced cutaneous surgeons, the book helps in fine-tuning techniques and reinforcing good practice methods.

Auckland, New Zealand — Sharad P. Paul
Tampa, FL, USA — Robert A. Norman

Contents

Contributors

Lisa M. Diaz, DO Dermatology Resident, Broward Health Medical Center, Fort Lauderdale, FL, USA

Michael Inskip, MB ChB, FRACGP Sun Patrol Skin Cancer Clinic, Berwick, VIC, Australia

Robert A. Norman, DO, MPH Dermatology Healthcare, Tampa, FL, USA

Vladimir Osipov, MD, FCAP Department of Anatomic Pathology, QML, Townsville, QLD, Australia

Sharad P. Paul, MD, MPhil Department of Skin Cancer, School of Medicine, University of Queensland, QLD, Australia

Faculty of Surgery, University of Auckland, Auckland, New Zealand

Skin Surgery Clinic, Auckland, New Zealand

Chapter 1
Skin Cancer of the Ear: Mastoid Interpolation Flap Reconstruction Tips

Sharad P. Paul

Background

Skin cancers are very common on the ear, due to its unprotected position on the body during outdoor activity, and continuous exposure to the sun through the car window while driving. The incidence of squamous cell carcinomas on the ear appears to be higher than that of basal cell carcinomas – with reports suggesting squamous cell carcinomas being the most common (>50 %), followed by basal cell carcinomas (30–40 %), and less frequently, melanomas(<5 %) [1]. The ear has special considerations due to its lack of underlying subcutaneous tissue. This allows for the potential of early perichondrial involvement of cutaneous tumors. It is therefore important to always examine regional lymph nodes of the neck, especially in cases of squamous cell carcinoma and malignant mela-

S.P. Paul, MD, MPhil
Department of Skin Cancer, School of Medicine,
University of Queensland, Brisbane, QLD, Australia

Faculty of Surgery, University of Auckland, Auckland, New Zealand

Skin Surgery Clinic, Auckland, New Zealand
e-mail: sharad@sharadpaul.com

S.P. Paul, R.A. Norman (eds.), *Clinical Cases in Skin Cancer Surgery and Treatment*, Clinical Cases in Dermatology,
DOI 10.1007/978-3-319-20937-1_1,

noma. When it comes to skin cancers of the ear with perichondrial involvement, up to a third of patients may have lymphatic spread [2]. Of course the goal following oncological resection is to recreate the ear to match the other ear; however as both ears are rarely viewed simultaneously in any facial view and may be partially or completely covered by hair, the size, position, and orientation of the ear to the scalp and anterior face may be more important than a geometrically exact match of the other ear. The most important skin-cartilage components that are necessary to make a recognizable ear are the helix, tragus, antitragus, and concha [3].

Many techniques have been discussed for reconstruction of the ear using flaps and grafts, after removal of skin cancer [4–7]. I am presenting a case of a malignant melanoma of the ear that needed a wider excision after excision of an initial 2 cm lesion (which was closed primarily with a wedge-excision after undermining) – in this case a mastoid interpolation flap was used after the wider excision. The technique of the retro-auricular mastoid interpolation flap, its planning and useful tips are detailed in this article.

Case History

A 62-year old white female patient presented with a changing pigmented lesion on her R ear. Clinical examination and dermatoscopy suggested a probable malignant melanoma in situ and the lesion was excised. The histological examination revealed a melanoma-in-situ and a malignant melanoma – Stage 1 A, Breslow thickness 0.3 mm, Clark level 2, non-ulcerated malignant melanoma.

Histopathology report:

EXCISION RIGHT EAR

Gross Description:

The specimen consists of a skin ellipse 24 x 14 x 5 mm with a central

variegated light and dark brown patch 15 x 6 mm. The entire lesion is processed.

SYNOPTIC REPORT FOR INVASIVE MALIGNANT MELANOMA

Tumour Type: Invasive malignant melanoma arising in an area of melanoma

in-situ

Clark Level: 2

Breslow Thickness: 0.3mm

Size of Invasive Tumour: 0.6mm width

Ulceration: Nil

Tumour Infiltrating Lymphocytes: Nil

Regression: Nil

Angiotropism: Nil

Lymphovascular Invasion: Nil

Perineural Spread/Neurotropism: Nil

Mitotic Rate: Not enough invasive tumour for a 1 sq mm count

Microscopic Satellitosis: Nil

Radial Margin of Excision: Margins clear of lesion. Closest melanoma

in-situ margin is 4mm. Closest invasive melanoma margin is 5mm.

Associated Nevus: Nil

SUMMARY DIAGNOSIS:

INVASIVE MALIGNANT MELANOMA, CLARK LEVEL 2, BRESLOW THICKNESS 0.375mm

MARGIN CLEAR

This tumor had an in-situ margin of 4 mm and the invasive melanoma had been removed with a margin of 5 mm. Margins for melanoma-in-situ have been the subject of recent debate. The accepted 5 mm guidelines were originally developed at a consensus meeting in 1992. A recent review in 2012, by a Moh's surgery team at a referral center for melanoma-in-situ suggested that the frequently recommended 5-mm margin for melanoma is inadequate. Standard surgical excision of melanoma in situ should include 9 mm of normal-appearing skin, similar to that recommended for early invasive melanoma [8]. Given our patient had a Stage 1 A invasive malignant