Stephen L. Bosniak (ed) Complex Socket Deformities Advances in Ophthalmic Plastic and Reconstructive Surgery
IX+ 310 pp.
ISBN 0–07–105383–2
The actual contributions are introduced by a reprint of Kennedy’s important paper (Trans Am Ophthalmol Soc 1964;62:469–510). He summarized the international knowledge about the effect of early enucleation on the growth of the orbit in the rabbit and cat. The age distribution at the time of enucleation is demonstrated in 42 human patients.
Dootz demonstrates the early use of expansion treatment in congenital anophthalmos and microphthalmos among infants. Techniques and results of progressive-sized hard conformers and lid expansion devices by the ocularist are demonstrated.
Downes, Lavin and Collin present a series of 38 patients with 57 congenitally contracted sockets. The use of a hydrophilic expander in the severely contracted anophthalmic socket with marked lid phimosis enable subsequent fitting and retention of a hard conformer in many of these cases, thus obviating early surgery.
Small et al. developed an expansion prosthesis for the anophthalmic or microphthalmic socket that is demonstrated in a case report.
Morax and Hurbli executed a three-stage treatment of severe cases with congenital anophthalmos and microphthalmos: (1) orbital expansion by surgery; (2) eyelid reconstruction, (3) final corrections (ptosis, entropion). Two cases with excellent results are reported in detail. Two cases of congenital symblepharon (variant of cryptophthalmus) are reported by Morax et al. Surgical treatment including expansion of the conjunctival fornix and reconstruction by inferior eyelid flap are demonstrated.
Kaltreider gives the history of the myofibroblast (Gabbiani 1971) and its significance for socket contraction – an important aspect.
In 17 patients with shortening of the conjunctival fornices by symblepharon or scar formation, Karesh et al. used 0.5-mm thick mucous membrane grafts sutured to the resected socket and splinted in place by a custom-designed conformer instead of full-thickness mucosa with follow-up between 6 and 76 (mean 29.8) months (a technique we have found very practicable for 28 years).
Putterman et al. describe their technique of socket reconstruction in 47 severe cases over a 10-year period. A large C-shaped conformer is wrapped with a large full-thickness oral mucosa graft, after all cicatricial tissue within the socket was excised. This unique conformer directs its force both vertically and deeply posteriorly. Authors were able to successfully reform spacious and stable fornices in 40 of 41 severely contracted sockets. 6 patients with inadequate follow-up were excluded. Bonavolonta used the temporal muscle to provide a well-vascularized bed for reconstruction of severely contracted sockets following irradiation.
Bosniak recommends autogenous dermis-fat grafts placed within Tenon’s capsule immediately following the removal of the globe. When the rectus muscles (and anterior ciliary arteries) are anastomosed to the dermal edges of the graft.

The role of flaps in the management of contracted sockets is discussed by Guyuron. 3 distinct classes of cases are differentiated. For patients with severe orbital and periorbital deficiencies, the choice is 1 of 3 flaps: the postauricular fasciocutaneous flap, secondary flaps (superficial temporal artery) and free vascularized flaps.

Dr. John Green’s first American report (Am J Ophthalmol 1884;1:6–9) of a modified exenteration with conservation of the eyelid skin and orbicularis muscle is reprinted together with a historical comment.

Indications and surgical techniques for orbital exenteration are discussed and demonstrated by Kennedy (reprint of a fine paper in Trans Ophthalmol Otolar-yngol 1971;86:967–973). Frezotti et al. describe the techniques for subtotal, total and radical orbital exenteration, in the last stage including resection of the bony walls and eventually the neighboring sinuses. Transplantation of the temporalis muscle may be followed by late atrophy of the flap with progressive enophthalmos.

Therefore, Frezzotti introduced the filling of the posterior two thirds of the orbital cavity with silastic (Dow Corning) and covering by a layer of temporalis muscle. Shore et al. recommend the dermis-fat graft for orbital reconstruction after subtotal exenteration, combined with a musculocutaneous flap for wound closure. The cosmetic problem must be discussed preoperatively.

Orbital exenteration with spontaneous granulation is discussed by Putterman. The final result seems to be more acceptable, because a shallower cavity occurs compared with the skin graft technique. Usually, orbital prosthesis is acceptable after 3 months postoperatively.

Goldstein demonstrates a special case. After subtotal exenteration, the skin and muscle of the lids became adherent to the bone, while the rest of the cavity was lined by Thiersch grafts. 6 weeks later, the lids were freed. Thiersch grafts were placed on the denuded areas and on the back of the lids. After 3 weeks, the lids were split almost to the margin of the orbit. A thin mold covered by a Thiersch graft was placed between the two separated lid layers. The procedure permitted sufficient support to the artificial eye!

The technique of orbital exenteration and repair by temporal muscle transplant is described by Reese and Jones in a reprint of Am J Ophthalmol 1961:51:217–227. 20 cases are presented. Bonavolonta demonstrates his technique of frontalis muscle transfer in the reconstruction of the exenterated orbit. The history and development of facial prostheses is given by Valauri.

Three-dimensional imaging and computer-designed prostheses in the evaluation and management of orbitocranial deformities are described by Ellis et al. Improved analysis of complex orbitocranial bony deformities leads to precise matching of bony defects. The technology is still evolving.

The impression procedure for oculofacial prosthet-ics without computer design is explained by Mitchell and Shipman.

Lubkin offers the help of the orbit-volume technique for comparing patient CTs with CTs of normal orbits. Impression-making, sculpting and coloring of orbital prostheses are demonstrated by Guerra et al.

Shipman et al. discuss the value of osseointegrated implants in facial prosthetics. ‘The dental and medical community is excited about the use of the osseointegrated implants in the area of facial
reconstruction. It will offer significant benefits!' Since 1979, the retention of craniofacial prostheses to the residual skeleton has been accomplished in Sweden with titanium fixtures. Bowden demonstrates a case with an exceptional esthetic result. Mechanical retention by clips, magnets or a combination of both afford a capacity to tailor a prosthesis to the unique needs and physical activities of patients.

Some chapters of surgical medicine are slowly developing. The orbit offers a special complexity of structures. Long-time follow-up is often difficult. Many of the exenterations have to be done in the last third of life.

This book contains some excellent chapters. It is especially valuable that the actual techniques of prosthetics after total exenteration are presented.

H. Neubauer, Cologne


This book summarizes the clinical approach to the infant with retinopathy of prematurity (ROP) as dictated by our current understanding of this disease. A number of short chapters are written by leading authorities on various aspects of ophthalmologic care of ROP, focusing on ‘the premature infant’s retina as it presents to the clinician in the neonatal intensive care unit’. Many of the contributions were presented at the ROP symposium co-sponsored by the Retina Society and American Academy of Ophthalmology in New Orleans in 1989, and have been updated as needed.

The first half of the book deals with the pathologic features, examination, diagnosis, classification and follow-up of ROP. These chapters synthesize nicely our current understanding of these aspects, as well as the valued personal experiences of the contributing authors. Results of the Cryo-ROP Study are also presented and discussed. Subsequent chapters on surgical management take the form of scientific papers, many of which have been published elsewhere and are included without significant alteration. Although these chapters contain important information on specific surgical problems and technique, they lack the overall perspective of the earlier chapters and are much more difficult to read. A chapter on photocoagulation for stage 3+ ROP highlights what is certain to become an important treatment modality. In addition, a treatise on the medico-legal aspects of caring for patients with ROP and a concluding panel discussion add to the book’s appeal.

The book is printed on high quality, acid-free paper. The black and white illustrations used in this book are sufficiently clear with one exception. Those describing the grading scheme for the International Classification of ROP suffer from image degradation, most likely from their reproduction from color photographs.

The conciseness of this book is its greatest asset. Its 162 pages can be read in its entirety in several sittings, leaving the reader with an excellent understanding of the topic and specific recommendations to which the busy clinician can refer. General and pediatric ophthalmologists, vitreoretinal specialists and neonatologists would find this book of great value as ‘a clinician’s guide’. It is an important contribution which is certain to make a substantial impact on the care of infants suffering from ROP.

Dennis P. Han, Milwaukee, Wise.

Gerald E. Lowther, Christopher Snyder

Contact Lenses
Procedures and Techniques
2nd ed.
Butterworth Heinemann, Oxford 1992
XI+ 414 pp.; £50.-
ISBN 0–7506–9187–5
W. Ehrich, Homburg (Saar)
Sobhy Morsy Mostafa (ed)
Anaesthesia for Ophthalmic Surgery
There have been important developments and a wider interest in the special quality of anaesthesia required for opthalmic surgery. This new book is welcome, because these have not been adequately covered in the general textbooks on anaesthesia. For some 30 years general anaesthesia has been widely used by European ophthalmic surgeons in preference to local anaesthesia. To some extent this preference is being reversed by the availability of better agents for local anaesthesia, cost restraints, and the lack of adequate anaesthetic services in some countries. The book highlights the close co-operation between surgeon and anaesthetist which has improved the safety of increasingly complex surgery. The anaesthetist in particular has gained knowledge and skill in the control of intra-ocular pressure and volume before, during and after surgery. The authors indicate a preference for general anaesthesia, but there is a well-balanced discussion. An experienced and competent surgeon may prefer local techniques for some of his patients, but if the anaesthetic service in his hospital is good, it is more likely that he will opt for general anaesthesia... The chapters on local anaesthesia consider the factors in making a choice between the two and the advantages and disadvantages of both.
T. This book is well written and has a good index. There are many recent references the text is thoroughly up to date and full of information for its readers. It deserves the attention of consultants and trainees in both specialties and should be available in their respective hospital units for future reference.