Contents

List of tables vii
List of video clips ix

Introduction: how to use this book 1

1 Essential anatomy and functions of the balance system 2
   Introduction 2
   Anatomy and physiology of the vestibular system 2
   Eye movements 11
   Multisensory integration 15

2 Symptoms and examination of the patient with vertigo and dizziness 19
   Symptoms 21
   Essentials of the clinical examination 28
   Eye-movement examination 29
   Vestibular eye movements 35
   Positional manoeuvres 40
   Frenzel’s glasses 42
   Posture and gait 43
   Clinical assessment of hearing 45
   Orthostatic blood pressure 46
   Laboratory examinations 46
   Separating peripheral from central vestibular lesions 49
   Imaging procedures in dizzy patients 50

3 A single episode of prolonged vertigo 53
   Vestibular neuritis 54
   Brainstem and cerebellar lesions 60
   Herpes zoster oticus (Ramsay Hunt syndrome) 66
   First attack of vestibular migraine 66
   First attack of BPPV 67
   First attack of Ménière’s disease 67

4 Recurrent vertigo and dizziness 70
   Recurrent vertigo 70
   Vestibular migraine 71
   Benign recurrent vertigo 78
   Ménière’s disease 79
   Vertigo due to vertebrobasilar transient ischaemic attack (TIA) 84
   Vestibular paroxysmia: vascular compression of the eighth nerve? 86
   Perilymph fistula 88
   Rare causes of recurrent vertigo 89
   What to do if you don’t have a clue 92
   Recurrent dizziness 93
   Orthostatic hypotension 94
   Cardiac arrhythmia 97
   Panic attacks 99
   Drug-induced dizziness 102
   Other causes of recurrent dizziness 106
   What to do if you don’t have a clue 106

5 Positional vertigo 108
   Posterior canal benign paroxysmal positional vertigo 109
   Horizontal canal benign paroxysmal positional vertigo: canalolithiasis type 117
   Horizontal canal benign paroxysmal positional vertigo: cupulolithiasis type 120
   Anterior canal benign paroxysmal positional vertigo 123
   Vestibular migraine 123
   Central positional vertigo 124

Other causes of acute persistent vertigo 67
What to do if you don’t have a clue 68

© in this web service Cambridge University Press
Other causes of positional vertigo 127
What to do if you don’t have a clue 129

6 Chronic dizziness and unsteadiness 131
The origin of chronic dizziness 132
Patients with a past history of vertigo 132
Visual vertigo 134
Motorist disorientation syndrome 135
Persistent postural perceptual dizziness (PPPD) 135
Other psychiatric dizziness syndromes 139
Chronic vestibular migraine 140
Late-stage Ménière’s disease 140
Patients with progressive disequilibrium 140
Bilateral loss of vestibular function 141
Neurological disorders causing progressive disequilibrium 143
Patients with no history of vertigo or disequilibrium 144
Management of the chronic dizzy patient 145
What to do if you don’t have a clue 146

7 Dizziness, imbalance and falls in the elderly 147
Introduction 147

Effects of physiological ageing on balance 148
Drug-induced dizziness 149
Benign paroxysmal positional vertigo (BPPV) 149
Orthostatic hypotension 150
Vascular disorders 151
Neurological disease 153
Fear of falling and cautious gait 158
Cardiac arrhythmia 158
Orthopaedic disorders 159
Falls in the elderly 159
Loss of consciousness 161
Approach to the patient with falls 164
Management of the faller 165
What to do if you don’t have a clue 165

8 Treatment of the dizzy patient 167
Patient reassurance, information and counselling 168
Rehabilitation 169
Drug treatment of vertigo, nausea and vomiting 175
Surgical treatment of vertigo 181

Further reading 183
Index 185