

Index

A

Acute ear infections and mastoiditis

AOM/ASOM, 94–98

otitis externa, 93–94

Acute laryngitis, 83

Acutely ischaemic limb

case presentation, 32

embolic events, 34

features, history and examination

arrhythmia, 32

parasthesia and paralysis,

32–33

popliteal aneurysm, 34

principles, acute management,

33–34

Acute otitis media (AOM). *See*

Acute suppurative otitis

media (ASOM)

Acute pancreatitis

case presentation, 19–20

features, history and

examination, 20

gallstones and alcohol account, 24

principles, management

blood tests, 21

CT scan, 21–23

erect CXR/AXR, 21

US abdomen, 21

UK Working Party guidelines, 23

Acute pharyngitis, 82

Acute sinusitis, 79

Acute suppurative otitis media

(ASOM)

mastoiditis, 97–98

pathogens, 94

stages

coalescence, 96–97

hyperemia, 95

perforation, 96, 97

suppuration, 95, 96

Acute throat infections, tonsillitis

acute airway obstruction, 82

erythematous tonsils, debris,
79, 80

features, history and

examination, 79–80

glandular fever, 81

parapharyngeal abscess, 82

principles, acute management,

80–81

quincy (peritonsillar abscess),

81–82

Acute urinary retention (AUR)

case presentation, 109

history and examination, 109–110

management

catheterization, 110

prevention, recurrence, 111

Adult trauma life support (ATLS)

assessment, 187

defined, 67

management protocols, 120, 135

Advanced trauma life support

(ATLS), 148, 149, 158, 172,

176, 178, 186, 187, 190

Al-Ghorab shunt procedure, 108, 109

I. Shergill et al. (eds.), *Surgical Emergencies in Clinical Practice*, 203

DOI 10.1007/978-1-4471-2876-2,

© Springer-Verlag London 2013

- Alkaline phosphatase (ALP),
9, 21, 43, 44
- ALP. *See* Alkaline phosphatase (ALP)
- Aortic aneurysm (AAA). *See* Ruptured AAA
- Aortic dissection
acute management, principles
aortography, 140–141
CT, 140
CXR, 140
ECG, 139
MRI, 140
case presentation, 29, 138
chronic, 31
features, history and
examination, 29–30,
138–139
hypertensives, 31
imaging, 142
principles, acute management,
30–31
risk factors, 142
surgery, 141–142
- Aortic transection
acute management, principles
CT angiography, 157–158
CXR, 157
case scenario, 155
features, history and
examination, 156
surgery/endovascular stent
grafting, 158
thorax, 158
treatment, 159
- Aortography
aortic dissection, 140–141
post-infarct VSR, 144
- ASOM. *See* Acute suppurative otitis media (ASOM)
- ATLS. *See* Adult trauma life support (ATLS); Advanced trauma life support (ATLS)
- AUR. *See* Acute urinary retention (AUR)
- B**
- Bite wounds
animal and human, 133
infection, 132–133
treatment, 133–134
- Blood gas testing, 107
- Bourneville's disease, 48
- Bowel obstruction
case presentation, 11
features, history and
examination, 12–13
fluid shift and resuscitation, 15
principles, acute management
blood tests, 13
CT scan, 13–15
water-soluble enema, 13
X-rays, 13
visceral perforation/infarction, 15
- C**
- Cardiac trauma
acute management, principles
ATLS, 148
CXR, 149
ECG, 149
echocardiography, 149–150
case presentation, 147
definitive management, 150
emergency room thoracotomy, 151
features, history and
examination, 148
median sternotomy, 151
- Cardiothoracic surgical emergencies
aortic dissection, 138–142
aortic transection, 155–159
cardiac trauma, 147–151
description, 137–138
infective endocarditis, 151–155
morbidity and mortality rates, 137
post-infarct VSR, 143–147
- Cauda equina syndrome
acute management, principles,
199–200
case presentation, 196–197
features, history and examination

- disc prolapse, 198–199
 - function, 198
 - multiple nerve roots, 197
 - painless urinary retention, 201
 - sensory symptoms, 200
 - surgery, 200
 - Chest radiograph (CXR)
 - aortic dissection, 140
 - aortic transection, 157
 - cardiac trauma, 149
 - post-infarct VSR, 144
 - Chronic liver disease, 16, 18
 - CK. *See* Creatine kinase (CK)
 - “Clamp and sew” technique, 158
 - Colonoscopy, 16, 18, 19
 - Color duplex ultrasonography, 107
 - Compartment syndrome (CS) *See also* Upper limb CS
 - case presentation, 57
 - features, history and examination, 58
 - principles, acute management, 59
 - surgical decompression, 59
 - Computed tomography (CT)
 - acute pancreatitis, 21–23
 - aortic dissection, 140
 - bowel obstruction, 13–15
 - right iliac fossa pain, 5
 - Computed tomography angiography (CTA), 31, 157–158
 - C-reactive protein (CRP), 4, 21, 38, 62
 - Creatine kinase (CK), 30, 178
 - Crohn’s disease, 3
 - CRP. *See* C-reactive protein (CRP)
 - CS. *See* Compartment syndrome (CS)
 - CT. *See* Computed tomography (CT)
 - CTA. *See* Computed tomography angiography (CTA)
 - Cushing’s syndrome, 47–48
 - CXR. *See* Chest radiograph (CXR)
- D**
- Dental infection
 - acute management, principles
 - OPG, 124, 125
 - steroids, 124
 - case presentation, 123–124
 - features, history and examination, 124
 - Ludwig’s angina, 125–126
 - oral antibiotics, 124
 - spaces, 125
 - Dentoalveolar injuries
 - acute management, principles, 121
 - case presentation, 120
 - dentoalveolar segment, 123
 - features, history and examination, 121
 - laceration, 121, 122
 - luxated tooth, 122, 123
 - Diabetic ketoacidosis (DKA)
 - blood glucose, 47
 - case presentation, 45
 - history and examination, 46
 - principles, acute management, 46
 - Diffuse brain injury
 - acute management, principles, 189
 - case presentation, 186–187
 - emergency surgery, 191
 - features, history and examination
 - ATLS approach, 187
 - GCS, 187, 188
 - sensorium, 189
 - intracranial pressure, 190
 - trauma, 190
 - Digit amputation
 - acute management, principles
 - amputated part, 173
 - ATLS, 172
 - emergency department care, 173
 - imaging, 172–173
 - laboratory test, 172
 - post operative care, 174
 - replantation, 173–174
 - case presentation, 170–171
 - contraindications, 175–176
 - features, history and examination, 171–172

- Digit amputation (*cont.*)
 indications, 175
 myoglobinuria, 174–175
 plastic surgery unit, 176
 revascularization, 174
- DKA. *See* Diabetic ketoacidosis (DKA)
- Dundee technique, 101
- Duplex ultrasonography, 36, 107
- E**
- Ear infections and mastoiditis
 AOM/ASOM, 94–98
 otitis externa, 93–94
- Ebbehoj technique, 108
- ECG. *See* Electrocardiogram (ECG)
- Echocardiography
 aortic dissection, 140
 cardiac trauma, 149–150
 post-infarct VSR, 144
- Ehlers-Danlos syndrome, 29–30
- Electrocardiogram (ECG)
 aortic dissection, 139
 cardiac trauma, 149
 post-infarct VSR, 144
- Endocrine emergencies
 compartment syndrome, 52
 DKA, 45–47
 hormone-secreting tumors, 42
 hypercalcemia, 42–45
 hypocalcemia, 50–51
 pheochromocytoma, 47–50
 thyroid/parathyroid surgery, 41–42
 thyrotoxic crisis, 52
- Endoscopic retrograde
 cholangiopancreatography (ERCP)
 common bile duct stones, 10, 11
 defined, 9
 and sphincterotomy, 22
 therapeutic, 23
- ENT emergencies
 acute ear infections and
 mastoiditis, 93–98
 acute sinusitis, 79
 defined, 73
 epistaxis (nose bleed), 74–77
 foreign bodies
 bronchus, 91
 ear, 92–93
 esophageal, 87–89
 nose, 91–92
 throat, 89–91
 hemorrhage, 74
 periorbital cellulitis, 77–78
 stridor, 83–87
 throat infections, 79–83
- Epistaxis (nose bleed)
 case presentation, 74
 features, history and
 examination,
 74–75
 principles, acute management
 causes, 77
 first aid, 75
 nasal cautery, 75–76
 nasal packing, 76
- ERCP. *See* Endoscopic retrograde
 cholangiopancreatography (ERCP)
- Extensive/proximal DVT
 axillary/subclavian venous
 thromboses, 39
 case presentation, 37
 features, history and
 examination, 37–38
 principles, acute management,
 38–39
- Extravasation injury
 acute management, principles
 cannula and mark, 183
 drug and blood, 181
 hyaluronidase, 183
 case presentation, 180
 features, history and
 examination, 181–182
 prevention, 183
 toxic agent, 184

G

- Gallstone disease, 7, 10, 11, 21
- Gartland system, 64–66
- Gastrointestinal (GI) bleeding. *See*
 - Lower gastrointestinal (GI) bleeding
- GCS. *See* Glasgow Coma Scale (GCS)
- Glasgow Coma Scale (GCS)
 - assessment, 188
 - brain injury, 189
 - defined, 69
 - neurological examination, 193

H

- Hirschsprung disease, 48
- Hypercalcemia
 - case presentation, 42–43
 - features, history and examination
 - abnormal calcification and cardiac arrhythmias, 43
 - gastrointestinal and renal symptoms, 43
 - psychological symptoms, 43
 - PTH, 44
 - generous rehydration and electrolyte replacement, 45
 - principles, acute management, 44–45
- Hypocalcemia
 - case presentation, 50
 - features, history and examination, 50
 - management, 50–51
 - rT3 and AdcalD3, 51

I

- IABP. *See* Intra-aortic balloon pump (IABP)
- Infarct exclusion technique, 145, 147
- Infective endocarditis
 - acute management, principles
 - antibiotics, 154
 - Duke's criteria, 153

- organisms, 153, 154
 - patients, 152–153
 - case presentation, 151
 - debridement, 155
 - features, history and examination, 152
 - operative mortality, 154, 155
 - surgery, 154
- Intra-aortic balloon pump (IABP), 145
- Intravenous pyelogram (IVP), 113–114
- Ipsilateral monocular blindness, 35
- IVP. *See* Intravenous pyelogram (IVP)

L

- Laparoscopic cholecystectomy,
 - symptomatic gallstone disease, 10, 11
- Lower gastrointestinal (GI) bleeding
 - case presentation, 15–16
 - features, history and examination, 16–17
 - morbidity and mortality, 19
 - principles, acute management
 - assessment and resuscitation, 17
 - blood tests, 18
 - mesenteric angiography, 18
 - nuclear scintigraphy, 18
 - OGD, 18
 - sigmoidoscopy/colonoscopy, 18
 - surgery, 19
 - severity, 19
- Ludwig's angina, 83, 84, 125–126

M

- Magnetic resonance
 - cholangiopancreatography, 9–10
- Magnetic resonance imaging (MRI)
 - aortic dissection, 140
 - cauda equina syndrome, 197, 201

Magnetic resonance imaging
(MRI) (*cont.*)

lumbar spine, 199
thrombolysis, 39

Mandibular fractures

acute management, principles,
128, 129

case presentation, 126–127
common sites, 129, 130, 136

features, history and
examination, 127–128

interpersonal violence, 128

ORIF, 129

plates, 129–130

reduction and fixation, 129

Marfan's syndrome, 29–31, 142, 192

Maxillofacial emergencies

dental infection, 123–126

dentoalveolar injuries, 120–123

mandibular fractures, 126–130

medical/surgical training, 119

post-dental extraction bleeding,
134–136

soft tissue injuries, 130–134

surgical airways management,
120

Mesenteric angiography, 18

MRI. *See* Magnetic resonance
imaging (MRI)

N

Neck of femur (NOF) fracture

case presentation, 54

diagnosis, 55–56

features, history and

examination, 54–55

Garden classification, 56, 57

principles, acute management, 55

treatment and prognosis,
56–57

Necrotizing fasciitis (NF)

acute management, principles
imaging, 164

laboratory tests, 164

medical therapy, 164–165

skin biopsy, 164

surgical care, 165

case presentation, 162

features, history and

examination, 162–163

surgical debridement, 166

types, 165

Neurosurgery emergencies

cauda equina syndrome, 196–201

description, 185–186

diffuse brain injury, 186–191

subarachnoid hemorrhage,
191–196

NF. *See* Necrotizing fasciitis (NF)NOF fracture. *See* Neck of femur
(NOF) fracture

Nuclear scintigraphy, 18

O

Oesophagogastroduodenoscopy
(OGD), 18, 19OGD. *See* Oesophagogastroduo-
denoscopy (OGD)Open reduction and internal
fixation (ORIF), 129OPG. *See* Orthopantomogram (OPG)ORIF. *See* Open reduction and
internal fixation (ORIF)

Orthopantomogram (OPG), 125, 128

Osler-Weber-Rendu disease, 77

P

Paget-Schroetter syndrome, 37

Paraphimosis

case presentation, 99–100

circumcision, 102

features, history and

examination, 100

management, 101–102

Parathyroid hormone (PTH), 44, 45

Patient-controlled analgesia (PCA),
21–22, 31PCA. *See* Patient-controlled
analgesia (PCA)

- Penile fracture
 case presentation, 102
 history and examination, 102–103
 principles, acute management, 103–104
 treatment, 104
- Periorbital cellulitis
 case presentation, 77
 features, history and examination, 78
- PFT. *See* Pyogenic flexor tenosynovitis (PFT)
- Pheochromocytoma emergency
 case presentation, 47
 features, history and examination, 47–48
 principles, acute management, 49
- Plastic surgery emergencies
 description, 161–162
 digit amputation, 170–176
 extravasation injury, 180–184
 necrotizing fasciitis, 162–166
 pyogenic flexor tenosynovitis, 166–170
 upper limb compartment syndrome, 176–180
- Poly-trauma patient
 case presentation, 67
 features and acute management
 principles
 airway and C-spine immobilization, 68
 ATLS, 67
 breathing, 68
 circulation, 68–69
 disability, 69
 exposure, 69
 “trauma series”, radiographs, 70
 hospital stay and prognosis, 71
 treatment, 70
- Post-dental extraction bleeding
 acute management, principles, 134–135
 case presentation, 134
- features, history and examination, 134
 local causes, 135
 systemic causes, 135
- Post-infarct VSR
 acute hemodynamic management, 146
 acute management, principles
 angiography, 144–145
 CXR, 144
 ECG, 144
 echocardiography, 144
 heart catheterisation, 145
 case presentation, 143
 diuretic therapy, 146
 features, history and examination, 143–144
 infarct exclusion technique, 147
- Post-thrombotic syndrome, 37–39
- Priapism
 case presentation, 105
 history and examination
 algorithm, management, 105, 106
 blood gas testing and color duplex ultrasonography, 107
 corpus cavernosum, 106
 defined, 105
 management
 objective, 107
 phenylephrine, 107–108
 shunt procedure, 108
 nonischemic, 109
- PTH. *See* Parathyroid hormone (PTH)
- Pyogenic flexor tenosynovitis (PFT)
 acute management, principles
 imaging, 168
 laboratory test, 168
 medical treatment, 169
 surgical treatment and procedure, 169
 case presentation, 166, 167
 features, history and examination, 166–167

- Pyogenic flexor tenosynovitis
 (PFT) (*cont.*)
 flexor tendon sheath
 infection, 170
 organisms, 170
 synovial fluid medium, 169–170
- R**
- Renal (ureteric) colic
 case presentation, 112
 diagnosis, 115
 history and examination,
 112–113
 management
 IVP, 113–114
 plain-film radiography, 113
 stone removal, 114
 treatment, stones, 114
- Right heart catheterisation
 IABP, 145
 post-infarct VSR, 145
- Right iliac fossa pain
 appendectomy, 6
 appendicitis, 6
 case presentation, 2
 features, history and
 examination, 2–3
 insulin-dependent diabetes, 45
 principles, acute management
 blood tests, 4–5
 CT, 5
 differential diagnosis,
 appendicitis, 3, 4
 urinalysis and ultrasound
 scan, 5
- Right upper quadrant pain
 case presentation, 6–7
 common bile duct stones, 10
 features, history and examination
 acute cholecystitis, 7–8
 ascending cholangitis, 8
 biliary colic, 7
 choledocholithiasis, 8
 differential diagnosis, 7
 empyema, gallbladder, 8
 gallstone disease, 10–11
 principles, acute management
 blood tests, 9
 ERCP, 9
 magnetic resonance
 cholangiopancreato-
 graphy, 9–10
 US abdomen, 9
- Ruptured AAA
 case presentation, 26
 features, history and
 examination, 26–27
 principles, acute management
 CTA, 28
 inform theaters, 27
 open vs. endovascular repair,
 28–29
 permissive hypotension, 27
 prevention, population
 screening, 28
- S**
- Septic arthritis
 case presentation, 60
 features, history and
 examination, 60–61
 principles, acute management,
 61–62
 skin abrasions/cuts, 62
 treatment, 62
- Sigmoidoscopy, 14, 18
- Sipple's syndrome, 48
- Soft tissue injuries
 acute management, principles,
 132
 bite wounds
 animal and human, 133
 infection, 132, 133, 136
 treatment, 133–134
 case presentation, 130, 131
 classification, 132
 features, history and
 examination, 131
 lacerations, 132
 traumatic tattooing, 132

Stridor

- causes
 - angioedema (angioneurotic/quincke edema), 86, 87
 - congenital and acquired, 85
 - Croup (acute laryngo-tracheo-bronchitis), 86
- epiglottitis and supraglottitis, 84–85
- expiratory and biphasic, 85
- noisy breathing, drooling saliva and fever, 83

Sturge-Weber syndrome, 48**Subarachnoid hemorrhage**

- acute management, principles
 - CT, 193
 - hydrocephalus, 195
 - imaging, 195
 - lumbar puncture, 193, 194
 - nimodipine, 194
 - rebleeding, 193
- case presentation, 191, 192
- cerebral aneurysm, 195
- features, history and examination, 191–193
- neurosurgical unit, 196
- symptoms, 195

Supracondylar fracture, humerus

- features, history and examination
 - definition and types, 63–64
 - deformity and skin, 64
 - neurovascular status and movement, 65
 - treatment, 65–66
- Gartland system, 66
- “monkey bars”, 63
- radial and ulnar pulses, 66

Surgical emergencies

- acute pancreatitis, 19–24
- bowel obstruction, 11–15
- defined, 1–2
- lower GI bleeding, 15–19
- right iliac fossa pain, 2–6
- right upper quadrant pain, 6–11

T**Testicular torsion**

- case presentation, 115
- history and examination, 115–116
- management, 116–117
- prophylactic orchiopexy, 117

Thoracic outlet syndrome, 39**Throat infections**

- acute laryngitis, 83
- acute pharyngitis, 82
- Ludwig’s angina, 83, 84
- tonsillitis, 79–82

TIA. *See* Transient ischemic attack (TIA)**Transient ischemic attack (TIA)**

- case presentation, 34
- CEA, 36–37
- features, history and examination, 35
- principles, acute management
 - duplex ultrasonography, 36
 - management, 35

Trauma and orthopedic**emergencies**

- compartment syndrome, 57–60
- defined, 53
- fractures, children, 54
- neck of femur fracture, 54–57
- poly-trauma patient, 67–71
- septic arthritis, 60–63
- supracondylar fracture, humerus, 63–67

Turner’s syndrome, 29–30**U****Upper limb CS**

- acute management, principles
 - ATLS, 178
 - diagnostic procedures, 178
 - imaging, 178
 - laboratory test, 178
 - medical therapy, 179
 - post operative care, 179
 - surgical therapy, 179

Upper limb CS (*cont.*)

case presentation, 176

features

examination, 177–178

history, 176–177

oxygenated blood, 180

pain, 180

tissue pressure, 179–180

Urological emergencies

AUR (*see* Acute urinary

retention

(AUR))paraphimosis,

99–102

penile fracture,

102–104

priapism, 105–109

renal (ureteric) colic,

112–115

testicular torsion,

115–117

V

Vascular emergencies

acutely ischaemic limb, 32–34

aortic dissection, 29–31

defined, 25–26

extensive/proximal DVT, 37–

ruptured AAA, 26–29

transient ischemic attack, 34–37

Ventricular septal rupture (VSR).

See Post-infarct VSR

VHL disease. *See* Von Hippel

Lindau disease

Von Hippel Lindau (VHL) disease,

48

W

WCC. *See* White cell count (WCC)

White cell count (WCC), 4, 62

Winter technique, 108