

Index

A

ACC. *See* Adrenocortical carcinoma (ACC)

ACTH. *See* Adrenocorticotrophic hormone (ACTH)

Adrenal incidentaloma

assessment, 9

diagnosis, 10

presentation, 9

Adrenal metastasectomy

advantages and disadvantages, 45

algorithm, patient selection, 44

isolated, resection, 43

laparoscopic resection, 44

metachronous, 45

Adrenocortical carcinoma (ACC)

advantages and disadvantages, 41

biochemical assessment, 38

definition and staging, 37

diagnosis, 11

histological assessment, 40–41

incidence, 37

informed consent, 39

laparoscopic adrenalectomy, 38

management, patients, 41

perioperative management, 39

postoperative care, 41

presentation, 10

radical adrenalectomy, 39–40

radiological assessment, 38

symptoms, 37

Adrenocorticotrophic hormone (ACTH)

deficiency, 282

excess (Cushing's disease), 284,
298–299

Aldosteronoma resolution score (ARS), 26

American Thyroid Association

(ATA), 208

Anaplastic thyroid cancer

advantages and disadvantages, 149

chemotherapy, 148

definition, 145

external beam radiotherapy, 147–148

incidence, 145

investigations, 146

management, 147

presentation, 145

prognosis, 147

radioiodine, 148

staging, 146

surgery, 147

treatments, 149

unencapsulated invasive cancer, 146

Angiography, 68

Appendiceal NETs

complications and outcomes, 100

definition, 98

investigations, 99

medical management, 99

presentation, 99

surgery, 99

ARS. *See* Aldosteronoma resolution score (ARS)

Arterialstimulation venous sampling (ASVS)

coeliac axis arteriogram, 65, 68

insulinoma localization, 68

visceral angiography, 68

ASVS. *See* Arterialstimulation venous sampling (ASVS)

B

BAETS. *See* British Association of Endocrine and Thyroid Surgeons (BAETS)

Bilateral neck exploration (BNE), 262, 264

- Biochemical, pNETs
 calcium, parathyroid hormone and prolactin, 61
 chromogranin, 59
 diagnosis, 59
 gastrin, 60
 hypoglycemia, 59
 insulin, 59
 PP, 59
 PPIs, 60
 somatostatin and glucagon, 61
 VIP, 61
- BNE. *See* Bilateral neck exploration (BNE)
- British Association of Endocrine and Thyroid Surgeons (BAETS), 226, 227
- C**
- Calciphylaxis, 274, 275
- Captopril suppression test (CST), 23
- Clinical audit, endocrine surgery
 actions, 227
 advantages and disadvantages, 228
 analysis and interpretation, 227
 data collection, 226–227
 good audit, 226
 outcomes, 225
 publication, 227
 specialist society/national audit, 227
 standards, 226
- Complications, pancreatic surgery
 advantages and disadvantages, 88
 biliointeric anastomosis, 89
 fistula, 88
 intra-abdominal hemorrhage, 88
 postoperative hemorrhage, 88
 SIRS, 88
- Computed tomography (CT)
 axial CT image, 64, 65
 coeliac axis arteriogram, 64, 65
 hepatic metastases, 72
 MDCT, 64, 72
- Conn, J.W., 20, 21
- Conn's syndrome
 advantages and disadvantages, 26
 aldosterone physiology and dysregulation, 19–20
 assessment, 6
 diagnosis
 biochemical tests, 22
 confirmatory tests, 6–7, 22–23
 lateralization studies, 23–24
 screening tests, 6
 epidemiology, 20
 hyperaldosteronism, 20, 21
 hypertension, ARS, 26
 medical management, 7
 medical therapy, 24–25
 presentation, 5–6, 20–21
 surgical management, 24, 25
- Craniopharyngioma, 294
- CST. *See* Captopril suppression test (CST)
- CT. *See* Computed tomography (CT)
- Cushing's syndrome
 advantages and disadvantages, 17
 assessment, 4
 definition, 13
 diagnosis, 4–5
 epidemiology, 13–14
 investigation and diagnosis, 14, 15
 medical management, 5, 14
 pathology, 14
 presentation, 3–4
 surgery
 complications, 16–17
 indications, 15
 preoperative and operative care, 15–16
- D**
- Differentiated thyroid cancer (DTC)
 advantages and disadvantages, 136
 description, 131
 and ETE, 189, 191
 examination, 132
 FTC, 136
 investigations, 132
 presentation, 131–132
 prognostic factors, 134–135
 PTC, 135
 staging, 132–133
 treatment, 135
- DTC. *See* Differentiated thyroid cancer (DTC)
- Duodenal NETs
 complications and outcomes, 95
 definition, 94
 investigations, 94
 medical management, 94
 presentation, 94
 surgery, 94–95
- E**
- EBRT. *See* External beam radiotherapy (EBRT)
- Electromyographic (EMG)
 laryngeal nerve, 203
 voice surgery, 203
- EMG. *See* Electromyographic (EMG)
- Endoscopic parathyroidectomy, 264

- Endoscopic ultrasound (EUS)
 duodenum, 64
 fine-needle aspiration cytology, 66
 intrapancreatic neoplasms, 64
- Epidemiology and pathology
 nonfunctioning pNETS, 58
 tumors, 57
- ETE. *See* Extra-thyroid extension (ETE)
- EUS. *See* Endoscopic ultrasound (EUS)
- External beam radiotherapy (EBRT), 211–212
- Extrapancreatic tumors
 axial CT image, 73, 74
 carcinoid syndrome, 74
 chronic gastrointestinal, 73, 74
 midgut carcinoids, 73
 octreotide, 73, 74
 PET-CT imaging, 74
- Extra-thyroid extension (ETE)
 advantages and disadvantages, 195
 central and lateral structures, 190, 191
 complication and outcomes, 194–195
 definition, 189
 esophagus, 194
 incidence, 189
 investigations, 190–191
 laryngeal involvement, 193
 medical management, 191–192
 neck vessels, 194
 preoperative, 192
 recurrent laryngeal nerve, 193
 signs and symptoms, 190
 strap muscle invasion, 192
 trachea, 193–194
- F**
- FAA. *See* Focused anterior approach (FAA)
- Familial hypocalciuric hypercalcemia (FHH), 242
- FDG. *See* Fluorodeoxyglucose (FDG)
- FHH. *See* Familial hypocalciuric hypercalcemia (FHH)
- Fine needle aspiration (FNA), 85
- Fine needle aspiration cytology (FNAC), 112–113, 216
- First-time parathyroid surgery
 biochemical confirmation, 248
 ioPTH estimation, 249
 performance, 248
 sestamibi, 249–250
 USS, 249–251
- FLA. *See* Focused lateral approach (FLA)
- Fludrocortisone suppression test (FST), 23
- Fluorodeoxyglucose (FDG), 69
- FNA. *See* Fine needle aspiration (FNA)
- FNAC. *See* Fine needle aspiration cytology (FNAC)
- Focused anterior approach (FAA), 263–264
- Focused lateral approach (FLA), 263
- Follicular thyroid carcinoma (FTC), 134, 136
- FST. *See* Fludrocortisone suppression test (FST)
- FTC. *See* Follicular thyroid carcinoma (FTC)
- G**
- Gagner, M., 265
- Gastric NETs
 complications and outcomes, 93
 definition, 92
 investigations, 92
 medical management, 92
 presentation, 92
 surgery, 93
- Gastrinomas
 duodenum, 68
 insulinomas imaging, 68
 MEN1, 68, 84
 PET-CT, 69–72
 radionuclide imaging, 69
 tumors, 68
 ZES, 82–83
- Gastroenteropancreatic neuroendocrine tumors (GEPNETs)
 extrapancreatic tumors, 73–74
 gastrinomas (*see* Gastrinomas)
 hormone potency, 63
 insulinomas (*see* Insulinomas)
 nonoperative therapy, 63
 pancreatic tumors, 72–73
- GEPNETs. *See* Gastroenteropancreatic neuroendocrine tumors (GEPNETs)
- GH. *See* Growth hormone (GH)
- Goiter
 CT and MRI, 112
 definition, 107
 FDG-PET, 112
 flow-volume loop studies, 111
 FNAC, 112–113
 inter- and intra-observation, 110
 laboratory investigations, 110–111
 prevalence, 108
 scintigraphy, 111
 symptoms and signs, 109
 ultrasonography (USS), 111
 worldhealth organizationclassification, 109
- Growth hormone (GH)
 deficiency, 282
 excess (acromegaly), 283, 298
 oral glucose tolerance test, 286

H

- Hematoma, 177–178
- Henry, J.F., 265
- HPT. *See* Hyperparathyroidism (HPT)
- 2HPT. *See* Secondary hyperparathyroidism (2HPT)
- 3HPT. *See* Tertiary hyperparathyroidism (3HPT)
- HPT-JT. *See* Hyperparathyroidism jaw tumor syndrome (HPT-JT)
- Hyperparathyroidism (HPT)
 - advantages and disadvantages, 244
 - classification
 - primary, 239
 - secondary, 239–240
 - tertiary, 240
 - clinical manifestations, 240–241
 - management, 243–244
 - PTH (*see* Parathyroid hormone (PTH))
- Hyperparathyroidism jaw tumor syndrome (HPT-JT), 259–260
- Hyperthyroidism, 157, 158
- Hypocalcemia management, 212
- Hypoparathyroidism
 - description, 180
 - intraoperative considerations, 181
 - postoperative considerations, 181
 - preoperative considerations, 180
- Hypophysectomy
 - adenoma growth, 301, 302
 - mass effect, 301, 302
 - pituitary hormone excess, 301, 302
 - revision surgery, 305
 - surgical approaches
 - early postoperative, 304
 - endoscopic transsphenoidal route, 302–304
 - intraoperative, 304
 - late postoperative, 305
 - sphenoid sinuses, 302

I

- Inferior petrosal sinus sampling (IPSS), 296, 297
- Inflammatory goiter, 117
- Insulinomas
 - angiography, 68
 - anterior surface, 80, 81
 - ASVS, 68
 - biochemical work-up, 79
 - CT, 64
 - enucleation, 80, 81
 - EUS, 64–66
 - hypoglycemia, 64, 79

- idiopathic nesidioblastosis, 63
- intraoperative prerequisites, 79
- laparoscopic surgery, 81
- MEN1, 79, 81–82
- MR Imaging, 66
- pancreatic resection, 79
- posterior surface, 80
- preoperative diagnosis, 64
- radionuclide imaging, 66–67
- tumor localization, 64
- Intraoperative PTH (IOPTH), 266–267
- IPSS. *See* Inferior petrosal sinus sampling (IPSS)

L

- Large bowel NETs
 - complications and outcomes, 101–102
 - definition, 100, 101
 - investigations, 100
 - medical management, 100
 - presentation, 100
 - surgery, 101
- Laryngeal nerve
 - EMG assessment, 203
 - laryngoscopy, 203
 - recurrent, 203, 204
- Lymphatic drainage, thyroid, 170, 171
- Lymph node surgery
 - advantages and disadvantages, 175
 - central neck dissection, 173–174
 - clinical examination, 170–171
 - complications, 174
 - controversies, 175
 - cytology, 172
 - imaging, 171
 - indications
 - central neck dissection, 172
 - lateral neck dissection, 174
 - lateral neck dissection, 174
 - lymphatic drainage, thyroid, 170, 171
 - neck, 169
 - staging, 170

M

- Magnetic resonance (MR) imaging, 66
- MDCT. *See* Multi-detector computed tomography (MDCT)
- Medullary thyroid cancer (MTC)
 - advantages and disadvantages, 144
 - clinical features, 140
 - definition, 139
 - diagnosis and investigations, 140–141
 - incidence, 139–140

nonsurgical treatment, 143–144
 surgery, 141–143

MEN1. *See* Multiple endocrine neoplasia type 1 (MEN1)

Miccoli, P., 264

Minimal access neck surgery
 abdominal and thoracic surgery, 217
 carbon dioxide insufflation, 217, 219, 220
 cosmesis, 217
 incisions position, 217–219
 trocars and operative equipment, 217, 220

Minimally invasive adrenal surgery
 PRPA, 50–53
 transperitoneal adrenalectomy
 information, 50
 left side, 49
 position, 48
 right side, 48–49

Minimally invasive parathyroidectomy (MIP)
 advantages, BNE, 262
 endoscopic technique, 265
 FAA, 263–264
 FLA, 263
 IOPTH, 266–267
 local vs. general anesthesia, 267
 MIVAT, 264–265
 modalities, contraindications, 263
 modern technology, development, 262
 neck ultrasonography, 262
 preoperative localization, 262–263
 radio-guided, 264
 robotic, 265–266

MIP. *See* Minimally invasive parathyroidectomy (MIP)

MIVAT. *See* Video-assisted parathyroidectomy (MIVAT)

MR imaging. *See* Magnetic resonance (MR) imaging

MTC. *See* Medullary thyroid cancer (MTC)

Multi-detectorcomputed tomography (MDCT), 64, 72

Multigland disease
 HPT-JT, 259–260
 MEN1 and MEN2A, 259
 neonatal HPT, 260

Multiple endocrine neoplasia type 1 (MEN1)
 conservative approach, 84
 distal pancreatic, 87
 gene mutation carriers, 87
 hypercalcemia, 84
 malignancy, 87
 PPPPD, 84
 proactive approach, 84
 radical approach, 84

N

National Cancer Intelligence, 227

NET surgery. *See* Neuroendocrine tumor (NET) surgery

Neuroendocrine tumor (NET) surgery
 appendiceal, 98–100
 definition, 91
 duodenal, 94–95
 epidemiology, 92
 gastric, 92–93
 large bowel, 100–102
 rectal, 102–103
 small intestinal, 95–98

Nonfunctioning pNEN
 clinical symptoms, 85
 FNA, 85
 hepatic metastasis, 86
 hormones, 85
 MEN1, 87
 metastatic, 86
 octreoscan, 85
 pancreatic tail, 85, 86
 total pancreatectomy, 86

Nontoxic goiter, 116

P

Pancreatic localization. *See*
 Gastroenteropancreatic
 neuroendocrine tumors (GEPNETs)

Pancreatic neuroendocrine neoplasms (pNENs)
 cholecystectomy, 78
 classification, 78
 complications, pancreatic surgery, 88–89
 CT imaging, 77
 gastrinoma, 82–84
 hormonal hypersecretion, 77
 insulinoma, 78–82
 malignant, 87
 MEN 1, 78
 nonfunctioning pNEN, 85–87
 pre and perioperative management, 78

Pancreatic neuroendocrine tumors (pNETs)
 biochemical, 59–61
 clinical features, 57, 58
 definition, 57
 epidemiology and pathology, 57–58
 genetic associations, 59
 hypersecretion, hormones, 57
 imaging, 61
 preoperative management, 59–62

Pancreatic polypeptide (PP), 59

Pancreatic tumors, 72–73

Papillary thyroid carcinoma (PTC), 134, 135

- Parathyroidectomy
 indications, surgery
 asymptomatic patients, 247–248
 symptomatic patients, 247
 localization
 first-time parathyroid surgery, 248–250
 reoperative surgery, 250–253
 SVC, 253
- Parathyroid hormone (PTH)
 malignancy, 242
 renal actions, 238
 serum concentration, 241
 skeletal actions, 238
 vitamin D3, 238–239
- Peptide receptor radionuclide therapy (PRRT), 62
- PET-CT. *See* Positron emission tomography CT (PET-CT)
- Pheochromocytoma (PHEO)/paranglioma (PGL)
 advantages and disadvantages, 11–12, 35
 assessment, 8
 complications, 34–35
 definition, 29
 diagnosis, 8–9
 epidemiology and pathology, 29–31
 investigations, 31–32
 medical management, 33
 metastatic disease, 35
 presentation, 7–8, 31
 surgery
 indications, 33
 operative and postoperative, 34
 preoperative, 33
- PHEO/PGL. *See* Pheochromocytoma (PHEO)/paranglioma (PGL)
- PHPT. *See* Primary hyperparathyroidism (PHPT)
- Pituitary disease
 advantages and disadvantages, 287
 biochemical assessment
 investigations, 285
 oral glucose tolerance test, 286
 short synacthen® test, 285
 water deprivation test, 286
 biochemical testing, 296
 characterization, 295
 follow-up, incidentalomas, 297
 “free hormones”, 286
 histopathological examination, 296
 imaging, 296, 297
 IPSS, 296, 297
 mass effect of lesion
 description, 281
 hypopituitarism, 282
 pituitary apoplexy, 283
 pituitary stalk compression, 283
 visual loss, 282
 medical treatments
 ACTH excess (Cushing’s disease), 298–299
 GH excess, 298
 gonadotrophin-secreting tumor, 299
 prolactinoma, 297–298
 TSH excess, 299
 ophthalmology assessment, 296
 pituitary hormone excess
 ACTH and TSH, 284
 GH, 283
 gonadotrophin-secreting tumor, 284
 hyperprolactinemia, 283
 pituitary incidentalomas, 284
 prolactin, 286
 radiotherapy, 299
- Pituitary MRI
 axial CT scans, 290, 291
 craniopharyngioma, 294
 description, 289
 microadenoma, 291, 293
 scan and protocol, 290
 size, shape and intensity, 291, 292
- pNENs. *See* Pancreatic neuroendocrine neoplasms (pNENs)
- pNETs. *See* Pancreatic neuroendocrine tumors (pNETs)
- Positron emission tomography CT (PET-CT)
 and ASVS, 72
 axial CT image, 69–72
 CT, 72
 diagnostic radiopharmaceuticals, 69
 and EUS, 69–72
 and FDG, 69
 gastroduodenal artery angiogram, 69–72
 GEP tumors, 69
 visceral angiography, 72
- Posterior retroperitoneoscopic adrenalectomy (PRPA)
 advantages, 50
 disadvantages, 51
 positioning, 51–52
 postoperative, 53
- Postoperative management, thyroid cancer
 definition, 207
 EBRT, 211–212
 hypocalcemia management, 212
 liothyronine (T3), 207
 RAI (*see* Radioiodine ablation (RAI))
 risk categorization, 212
 serum calcium, 207

- thyroglobulin measurement, 213
 - TSH suppression, 212
 - PP. *See* Pancreatic polypeptide (PP)
 - PPIs. *See* Proton pump inhibitors (PPIs)
 - PPPPD. *See* Pylorus-preserving partial pancreatoduodenectomy (PPPPD)
 - Preoperative management, pNETs
 - chemotherapy, 62
 - gastrinoma, 61–62
 - insulinoma, 61
 - PRRT, 62
 - somatostatin receptor scintigraphy, 62
 - Primary hyperparathyroidism (PHPT)
 - advantages and disadvantages, 260
 - calcium concentration, 241
 - conservative management, 256–257
 - drugs, 243
 - FHH, 242
 - germline mutations, 255
 - investigations, 256
 - malignancy, 242
 - manifestations, 240–241
 - multigland disease, 259–260
 - multiple endocrine neoplasia (MEN), 239
 - parathyroid cancer, 258–259
 - presentation, 256
 - surgical management
 - complications, 258
 - indications, 257
 - parathyroid glands, 257–258
 - transcervical thymectomy, 258
 - Prolactinoma, 297–298
 - Proton pump inhibitors (PPIs), 60
 - PRPA. *See* Posterior retroperitoneoscopic adrenalectomy (PRPA)
 - PRRT. *See* Peptide receptor radionuclide therapy (PRRT)
 - PTC. *See* Papillary thyroid carcinoma (PTC)
 - PTH. *See* Parathyroid hormone (PTH)
 - Pylorus-preserving partial pancreatoduodenectomy (PPPPD), 84
- R**
- Radio-guided parathyroidectomy, 264
 - Radioiodine ablation (RAI)
 - and ATA, 208
 - diagnostic radioiodine scans, 211
 - indications, postoperative, 208–209
 - levothyroxine (T4), 210
 - low-iodine diet, 209
 - post-ablation radioiodine, 210
 - preparation, 209
 - recurrent disease, 211
 - side effects, radioiodine treatment, 210–211
 - therapy, 207
 - thyroglobulin (Tg), 208
 - total thyroidectomy, 207
 - and TSH, 209–211
 - Radionuclide imaging
 - axial CT image, 67
 - insulinoma, 67
 - oncology, 66
 - PET-CT, 66
 - SRS, 66, 67
 - SSTr, 66, 67
 - RAI. *See* Radioiodine ablation (RAI)
 - Rectal NETs
 - complications and outcomes, 103
 - definition, 102
 - investigations, 102
 - medical management, 102
 - presentation, 102
 - surgery, 103
 - Recurrent laryngeal nerve (RLN) injury
 - incidence, 178
 - intraoperative considerations, 178–180
 - preoperative considerations, 178
 - Renal hyperparathyroidism
 - hemostats, 277, 278
 - 2HPT, 273–274
 - 3HPT, 274
 - management, 274–275
 - sPTX and tPTX+AT, 275, 276
 - surgery
 - laryngeal nerve and inferior thyroid artery, 276, 277
 - postoperative, 276–277
 - preoperative, 276
 - Reoperative parathyroid surgery
 - advantages and disadvantages, 271
 - biochemistry, 270
 - endocrine syndromes, 269
 - localization, 270
 - minimally invasive incision, 271
 - persistent hyperparathyroidism, 269
 - preoperative care, 270
 - PTH measurement and frozen section, 271
 - recurrent disease, 269
 - Reoperative surgery, parathyroid glands
 - CT angiography, 253
 - description, 250
 - MRI, 251–252
 - SPECT/CT, 251

- Retrosternal goiter
 advantages and disadvantages, 168
 Berry's sign, 165
 complications and outcomes, 167–168
 definition, 163
 incidence, 163
 indicators, compression, 164
 investigations, 165
 medical management, 166
 Pemberton's sign, 164
 surgery, 166–167
 thyroid cork, 165
 thyroid enlargement, 164
- Revision thyroid surgery
 advantages and disadvantages, 186
 complications, 184, 185
 conventional midline approach, 185
 definition, 183
 incidence, 183
 indications, 183, 184
 lateral approach, 185
 pathological and surgical factors, 184
 postoperative instructions, 186
- RLN. *See* Recurrent laryngeal nerve (RLN)
- RLN injury. *See* Recurrent laryngeal nerve (RLN) injury
- Robotic parathyroidectomy, 265–266
- Robotic surgery
 surgical incisions, 217
 thyroidectomy, 217, 221
 thyroid gland, 217
- S**
- Saline suppression test (SST), 22
- Secondary hyperparathyroidism (2HPT), 273–274
- Selective venous catheterization (SVC), 253
- SIRS. *See* Systemic inflammatory response syndrome (SIRS)
- SLN. *See* Superior laryngeal nerve (SLN)
- Small intestinal NETs
 complications and outcomes, 98
 definition, 95
 investigations, 96
 medical management, 96
 presentation, 95–96
 surgery, 97–98
- Somatostatin receptors (SSTr), 66, 67
- Somatostatin receptor scintigraphy (SRS), 66, 67
- sPTX. *See* Subtotal parathyroidectomy (sPTX)
- SRS. *See* Somatostatin receptor scintigraphy (SRS)
- SST. *See* Saline suppression test (SST)
- SSTr. *See* Somatostatin receptors (SSTr)
- Subtotal parathyroidectomy (sPTX), 275, 276
- Superior laryngeal nerve (SLN), 180
- SVC. *See* Selective venous catheterization (SVC)
- Systemic inflammatory response syndrome (SIRS), 88
- T**
- Tertiary hyperparathyroidism (3HPT), 274
- Thy/Bethesda classifications, thyroid nodule, 124–125
- Thyroglobulin measurement, 213
- Thyroid and parathyroid surgery
 advantages and disadvantages, 204–205
 adverse effects, 202
 definition, 201
 EMG assessment, 203
 functional dysphonia, 202
 hypothyroidism, 202
 laryngeal and pharyngeal nerves, 201
 laryngoscopy, 203
 meticulous surgery, 202
 nerves, 201
 pathology, 202
 permanent change, 201
 stridor, 203
 surgeon's legal responsibilities, 202
 treatment
 bilateral vocal cord paralysis, 204
 laryngeal nerve, 203, 204
 stridor, 203
- Thyroid disease
 advantages and disadvantages, 121
 classification, 115, 116
 ectopic thyroid, 118
 enlargement, 115, 118
 inflammatory goiter, 117
 management, 118–119
 nonsurgical treatments, 120
 simple (nontoxic) goiter, 116
 surgery, 119
 thyroglossal duct cysts, 118
 toxic goiter, 117
- Thyroidectomy technique
 advantages and disadvantages, 154–155
 approach to thyroid gland, 152
 closure, 153, 154
 dissection, thyroid gland, 152–153
 laryngoscopy, 151
 marking and positioning, 151, 152
 postoperative care, 154
 thyroid function tests, 151

- Thyroid nodule
 advantages and disadvantages, 128
 clinical risk factors, 126
 contrast-enhanced “microbubble” US, 127
 core biopsy, 127
 CT-PET, 127
 description, 123
 molecular risk factors, 126–127
 sonographic risk factors, 126
 Thy/Bethesda classifications, 124–125
 US elastography, 127
- Thyroid-stimulating hormone (TSH)
 suppression
 and ATA, 212, 213
 diagnostic whole body I¹³¹ scans
 (WBS), 209, 211
 and DTC, 212
 human recombinant, 209, 211
 osteoporosis and cardiac arrhythmia, 212
- Thyroid surgery
 airway
 advantages and disadvantages, 200
 difficulty swallowing, 197
 examination, 198
 extubation, 199–200
 intubation, 198–199
 investigations, 198
 laryngeal nerve damage, 198
 management, 197
 calcium optimization, 222
 complications, 177
 consent process
 bleeding, hypoparathyroidism and
 recurrent laryngeal nerve, 230
 clinical records, 231
 complications, 229
 investigation and information, 230
 diagnostics, 216
 EMG monitoring, 222
 external branch, SLN, 180
 FNAC, 216
 hematoma, 177–178
 high-volume practice, 216
 horrible butchery, 215
 hypoparathyroidism, 180–181
 litigation
 causation, 231
 duty of care, 231
 expert witness, 232
 likelihood, factors, 232
 medical negligence, 231
 minimal access neck surgery, 217
 morbidity and cosmesis, 215
 mortality, 216
 recommendation, 229
 revision (*see* Revision thyroid surgery)
 RLN injury, 178–180
 RLN monitoring, 222
 robotic surgery, 217
 surgical equipment, 219–221
 WHO checklist, 222
- Thyrotoxicosis
 advantages and disadvantages, 161
 assessment, 159
 causes, 158
 complications, 161
 definition, 157
 etiology and incidence, 157
 indications, surgery, 159
 intraoperative considerations, 160
 postoperative considerations, 160
 potassium iodide, 160
 symptoms and signs, hyperthyroidism, 158
- Total parathyroidectomy with
 autotransplantation (tPTX+AT),
 275, 276
- Toxic goiter, 117
- U**
- Ultrasound scanning (USS),
 parathyroid adenoma
 contrast-enhanced CT, 249, 250
 vs. CT angiography, 253
 demonstration, 249, 251
 inferior thyroid artery, 249
 T1- and T2-weighted imaging, 249, 252
- V**
- Vasoactive intestinal peptide (VIP), 61
 Video-assisted parathyroidectomy
 (MIVAT), 264–265
 VIP. *See* Vasoactive intestinal peptide (VIP)
- Z**
- Zollinger-Ellison syndrome (ZES)
 clinical manifestations, 82
 distal pancreatectomy, 83
 hypergastrinemia, 82
 intraoperative prerequisites, 83
 MEN1, 82
 PPPPD, 83
 secretin stimulation test, 82
 sporadic gastrinoma, 83