

Subject Index

Note: Page numbers in *italics* refer to illustrations; page numbers in **bold** refer to tables.

Abbreviations: MT/P – medical thoracoscopy/pleuroscopy; VATS – video-assisted thoracic surgery

A

acute respiratory distress syndrome (ARDS) 40, 41, 63
 adenocarcinoma, lung *see under* lung cancer
 adenovirus infection, pleural effusions in 132
 adhesions 153
 fibrinous 127, 128, 129, 131
 pleural 33, 136
 blunt dissection technique 79–80, 81
 dense, introduction of endoscope 80
 from nonspecific pleuritis 132
 preventing MT/P 33, 34, 58
 removal/cauterization by Jacobaeus 8, 8, 9
 in rigid thoracoscopy 87, 89
 pleuropulmonary 132
 in tuberculosis 127, 128, 129
 vascularized 87, 106, 148
 air embolism 60
 air evacuation, spontaneous pneumothorax 42–44, 43
 air leakage
 in drainage systems 97
 prolonged, MT/P complication 62
 alfentanil **85**
 alveolar filling 147
 alveolar proteinosis 147
 anatomy 66, 78
 artificial pneumothorax induction 82, 82
 knowledge needed for MT/P 65, 66
 rigid thoracoscopy 88
 anesthesia
 general 78, 84
 local *see* local anesthesia
 for MT/P 78, 84–86
 for VATS 16, 18
 aneurysm, arteriovenous, of lung 154

animals, MT/P in 54–55, 100
 anthracosilicosis 148
 anthracosis 148
 anthracotic pigmentation 105, 113, 116, 117, 128
 sarcoidosis 145
 anti-reflux procedures 20
 arrhythmias, MT/P complication 61, 63, 86
 arteries, anatomy 82, 82, 138
 arteriovenous aneurysm, of lung 48, 154
 artificial pneumothorax complications 60
 in diffuse lung disease 47, 144, 145, 146, 147, 148, 149
 history of development 4
 induction method 79, 80, 81–83
 instruments for 75–76, 76
 pleural pressure 83, 83
 set-up for 80
 sites 82, 82
 timing of 83
 water manometer for 83, 83
 requirement for 47, 58
 asbestos-induced disease 28, 113
 benign asbestos pleural effusion (BAPE) 28, 113
 see also mesothelioma, malignant
 aspiration, primary spontaneous pneumothorax 42, 43
 atelectasis 133, 138, 140
 hemorrhagic pulmonary infarct and 153
 lateral segment of middle lobe 154
 secondary spontaneous pneumothorax with 141
Atlas of Diagnostic Thoracoscopy (Brandt et al.) 7, 12, 12, 53
Atlas Thoracoscopicon (Cova) 7, 8, 8
 autoclaving 70, 71
 autofluorescence thoracoscopy 56, 90, 121
 autofluorescence videothoracoscopy 29, 34
 axillary triangle 78

B

basic fibroblast growth factor (bFGF) 39, 40
 benign asbestos pleural effusion (BAPE) 28, 113
 benzodiazepines **85**
 biopsy *see* lung biopsy; pleural biopsy
 blebs, subpleural 19, 42, 44, 138, 139, 140
 secondary spontaneous pneumothorax 142
 bleeding
 MT/P complication 61, 63, 64
 MT/P contraindication in coagulopathies 58
 pleural biopsy complication 90
 bleomycin, pleurodesis 37, 38, 40
 blunt dissection technique 79–80, 81
 Boutin, Christian 12
 Brandt, Hans-Jürgen 7, 12, 13
 breast carcinoma, pleural effusions 25, 116, 117, 118, 121
 bronchial obstruction 154
 bronchopleural fistula 48, 62, 97, 142
 bronchoscope, flexible 3, 13
 bronchoscopy, before pleurodesis 38
 bronchovideoscope 13, 74, 75
 bullae, spontaneous pneumothorax 42, 44, 139, 141, 142
 “bulloscopy” 142

C

cannulas 87, 94
 cardiac arrhythmias, MT/P complication 61, 63, 86
 cardiac tamponade 50
 cardiophrenic angle, lipoma in 155
 catheter
 indwelling pleural 36
 removal during MT/P 51, 52

- cauterization 8, 10
 electrocautery 45, 73, 75
- cervical mediastinoscopy,
 VATS vs 21
- chest cage, anatomical landmarks
 65, 66
- chest tube
 assessment/monitoring 96–98
 care 95–98
 drainage systems 96, 95–96, 97
 insertion 59, 95, 95
 nonfunctioning 96–98
 placement and duration 95, 95
 removal 95, 98
- chest tube drainage
 apparatus 96, 95–96, 97
 MT/P complications 62
 pleuroscopy after 80, 81
 recording volume 98
 talc insufflation and 92, 94
 total lung capacity and 47, 48
 two-bottle system 96, 95–96
see also drainage systems;
 pleural drainage
- chest tube thoracostomy 37, 38, 96
- chest wall
 hyaline plaques 113, 114
 hyperemia 116
 lesions/diseases 51
 lipoma 154
 malignant tumors 106
 seeding by tumor cells 63
 in tuberculosis 125
- children, MT/P 47, 53
 rigid thoracoscopy 72
- chylothorax, idiopathic 133
- cirrhosis of liver 33, 135
- cleaning of equipment,
 pre-disinfecting 70
- coagulation 43, 45
- coagulopathies 58
- complications, of MT/P
 11, 60–64
 post-procedure 60, 62–64
 pre-procedure 60, 60–61, 86
 prevention 64
 during procedure 60, 61, 86
- computed tomography (CT)
 malignant pleural effusions
 26, 27
 patient positioning and
 77, 77
- conferences/symposia 14
- confocal laser endomicroscopy 48
- contraindications
 MT/P 33, 34, 57, 58, 58–59
 VATS 18
- costovertebral region,
 in tuberculosis 127
- cough/coughing 67, 86, 87, 97
- Cova, Felix 7, 8, 9–10
- Cruise, Francis-Richard 5, 6
- cystoscope 6
- cysts
 aspiration of 90
 pleuropericardial 155
- D**
- decortication 20
- desquamative interstitial pneumonia
 (DIP) 146
- diagnostic MT/P 7, 16, 23, 23
 advantages 3
 further development 11–12,
 11–14, 12
 history/development 5–7
 indications *see* indications
 (for thoracoscopy)
see also medical thoracoscopy/
 pleuroscopy (MT/P)
- diaphragm 133, 152, 155
 adhesions 127, 132, 135
 diseases 51
 tumor nodules on
 117, 118, 123
- diazepam 85
- diffuse lung diseases, MT/P in
 46–48, 143–149
- “direct thoracoscopy” 14
- disinfection 70
- documentation 99
- drainage systems 95, 95–96, 96, 97
 assessment/monitoring 96–98
 constant-suction 97, 97
see also chest tube drainage
- drugs, during/after MT/P 84, 85
- dyspnea 26, 44
- E**
- effusions, pleural *see* pleural
 effusions
- electrocautery
 in lung biopsy 91
 instruments 71, 75
- emphysema 106
 bullous 141
 subcutaneous 60, 62, 63
- empyema, pleural 31–32, 32
 fibronolytics 31
 fibrinopurulent stage 131
- management
 historical 5, 10
 VATS 20
 as MT/P complication 62
 tuberculous 129
- endoscopy room 69–71
- equipment 71–76
 chest drainage systems
 95, 95–96, 96, 97
 MT/P 16, 69–70
 rigid thoracoscopy
 71, 72, 72–73
 semirigid pleuroscopy
 73–76, 74, 75, 76
 for sympathectomy 49
see also rigid thoracoscope;
 semirigid (semiflexible)
 pleuroscope
 for pneumothorax 75–76, 76
 pre-disinfecting cleaning 70
 resuscitation trolley 70
 sterilization 70, 71, 74
 used by Jacobaeus 6
 VATS 16, 17–18, 21
- esophageal procedures, VATS 20
- esophagectomy 20
- Ewing sarcoma, metastases 119
- “extended thoracoscopy” 14, 33, 58,
 79–80
- F**
- fantanyl 85
- fever, postoperative 62, 64
- fibrin deposits 126, 127, 134,
 135, 139
- fibrinous bands 88, 106, 127, 128
- fibrous bands 87, 136
- flumazenil 85, 86
- fluorescein use, in pneumothorax
 140
- fluorescence 29
see also entries beginning
 autofluorescence
- fluoroscopy 79, 79, 87
- forceps
 “Kelly”, for blunt dissection
 79–80, 81
 lung biopsy 90–91
 semirigid (semiflexible)
 pleuroscopy 74, 75
- Forlanini, C. 4, 6

G

gastric cancer, metastases 119
 granulomata 89
 tuberculous 30
 guidelines
 on closed needle pleural
 biopsy 27
 on thoracoscopy 16
 guide-wire technique 81

H

hamartochondroma 152
 hemorrhage *see* bleeding
 history (of thoracoscopy) 4–15
 medical thoracoscopy 3–4, 69
 artificial pneumothorax for 4
 as diagnostic method 5–7
 diagnostic uses 7
 therapeutic 6, 7–10
 surgical thoracoscopy 3–4
 Holmgren, Israel 6
 honeycomb lung 48
 hyaline plaques 110, 113, 114
 hydrothorax 135
 hypercarbia 58
 hyperemia 106, 116, 126, 133
 capillary 135
 hyperhidrosis
 therapeutic MT/P 10, 21, 49, 50
 VATS 21
 hypersensitivity reactions 61
 hypotension, MT/P complication
 61
 hypoventilation, MT/P
 complication 61
 hypoxemia
 MT/P complication 61
 MT/P contraindications 58
 hypoxia 86

I

idiopathic pulmonary fibrosis
 146, 147
 immunocytoma, pleural effu-
 sion 123
 immunosuppressed patients, MT/P
 in 46–47, 57
 children 53
 mortality 63
 indications (for thoracoscopy)
 MT/P 3, 11, 11, 17, 17, 19,
 21, 22–52

in children 53
 diffuse lung diseases 46–48
 miscellaneous 48–51
 pleural effusions *see* pleural
 effusions
 pneumothorax *see* pneumo-
 thorax
 recent changes in, and rea-
 sons 22, 22–23, 23, 24–25
 therapeutic MT/P 24, 25,
 35–41
 in West Germany 22
 VATS 16–17, 17, 18, 22–23
 esophageal 20
 lung 18–19
 mediastinal 20–21
 pleural 19–20, 45
 infants, rigid thoracoscopy 72
 inflammatory reaction
 malignancy differentiation 89
 to thoracoscopic talc pleurodesis
 41, 41, 62, 63
 information for patients, on MT/P
 57
 instruments *see* equipment
 intercostal muscles 78
 intercostal vessels 82, 126, 138
 internal mammary artery 82
 internal thoracic artery 138
 interstitial lung disease 47, 56
 respiratory bronchiolitis
 associated (RBILD) 147
 investigations, before MT/P 57, 65

J

Jacobaeus, Hans-Christian 5, 5, 8,
 29, 69
 diagnostic thoracoscopy
 development 5–7, 6, 7
 therapeutic medical thoracoscopy
 6, 7–10, 8, 10
 “Jacobaeus operation” 6, 7–10, 29

K

“kinematography” 10, 10

L

Langerhans cell histiocytosis
 46, 146
 laparoscopy 6
 laser coagulation 47, 151

learning, thoracoscopy *see* training/
 learning
 left-ventricular failure, pleural
 effusions 136
 leiomyofibroma 152
 lidocaine 61, 86
 lipoma 154, 155
 liver
 anatomy 65, 66
 cirrhosis 33, 135
 lobectomy, VATS 17, 19
 local anesthesia 69, 84
 drugs used 84, 85
 hypersensitivity reactions 61
 techniques 84–86
 lung
 collapse 67, 120, 135
 entrapment 67
 hemorrhagic congestion 153
 injury, MT/P complication 58, 61
 interlobar septae thicken-
 ing 146, 147
 lobes, appearance 114, 133, 136,
 144, 145, 146, 149, 152, 155
 procedures performed with
 VATS 18–19
 reexpansion after MT/P
 37, 86, 94
 solitary lesions 51
 tethering 136
 wedge resection 18
 lung biopsy 46
 contraindications 58, 90
 forceps, during MT/P 46, 90–91
 open surgical 46, 48
 perihilar 91
 specimen sizes 91–92, 92
 thoracoscopic (MT/P) 46, 46,
 47, 47
 advantages/disadvantages 48
 in animals 54
 bleeding control 48, 90
 techniques 90, 91, 90–91
 transbronchial 47, 48
 VATS 18, 46
 wedge 48, 91
 lung cancer
 adenocarcinoma 105, 106, 107
 malignant retraction 151
 malignant pleural effusions
 25, 103–107
 metastatic *see* lung metastases
 non-small-cell, pleural effusions
 35
 prognosis 35
 small-cell 104, 105
 squamous cell carcinoma 106

- lung cancer*
 staging 22
 cervical mediastinoscopy vs
 VATS 21
 MT/P 28
- lung disease*
 bullous 62, 91
 diffuse 46–48, 143–149
 interstitial 47–48, 56, 147
 knowledge needed for MT/P
 65
- lung metastases* 149
 VATS indication 18–19
- lung volume reduction surgery*
 (LVRS) 19
- lymphadenectomy, thoracic* 21
- lymphangiogenesis* 111, 117
- lymphangiogenesis carcinomatosa* 149
- lymphangitis* 89
- lymphatics* 67, 144
- lymphomas, malignant pleural*
 effusions 25, 122–123
- M**
- malignant lymphoma* 28, 34, 123
- manometer, pneumothorax*
 apparatus 83, 83
- mediastinal shift* 26, 86
- mediastinal tumors* 51
- mediastinoscopy, cervical, VATS*
 vs 21
- mediastinotomy, anterior, VATS*
 vs 21
- mediastinum* 146
 adhesions 106
 anatomy 65, 66
 anterior, effusions 135
 distended veins 107, 135
 masses, VATS for 20
 posterior 106
 VATS indications 20–21
- medical history* 57
- medical thoracoscopy/pleuroscopy*
 (MT/P)
 adhesions preventing
 33, 34, 58
 advantages 16, 21, 24, 25, 28
 in animals 54–55, 100
 children 47, 53, 72
 clinical prerequisites 57
 complications *see* complications,
 of MT/P
 contraindication 33, 34, 57, 58,
 58–59
 definitions 16
 demand for 24–25
 recent changes in, and reasons
 22, 22–23, 23, 24–25, 51
 diagnostic *see* diagnostic MT/P
 false-negative (malignant
 effusions) 28
 history *see* history
 (of thoracoscopy)
 indications *see* indications
 instruments *see* equipment
 knowledge and skills for 65–68
 minimum number per annum
 100
 mortality rates 16, 63–64
 personnel involved 14–15,
 15, 71
 principles 69
 research 22, 54, 56
 sensitivity/specificity 27, 28, 30
 technique *see* techniques
 (thoracoscopy)
 terminology and origin of
 term 4, 14–15
 therapeutic *see* therapeutic MT/P
 VATS/surgical thoracoscopy
 differences 16, 16–21
- medications/drugs* 84, 85
- mesothelioma, malignant, diagnostic*
 MT/P
 biopsy method comparisons
 28, 28
 biphasic 109, 110, 111
 diffuse 109, 110
 epithelioid 110, 111
 pleural effusions due to 108–112
 with pleural plaque 110
 point of entry 78
 research 56
 sarcomatoid 112
 staging 22
 tumor cell seeding of chest
 wall 63
- metastases*
 malignant pleural effusions
 from 115–121
 pleural 26, 27, 27
see also lung metastases
- methemoglobinemia* 61
- midazolam* 85
- minimally invasive thoracic surgery*
see video-assisted thoracic
 surgery (VATS)
- minithoroscopes, rigid* 73
- minithoracoscopy* 14
- minithoracotomy* 16
- mitral stenosis, pleural effu-*
sions 136
- monitoring of patient* 71, 86
- morphine* 85
- mortality rates, MT/P* 16, 63–64
- MT/P see* medical thoracoscopy/
 pleuroscopy (MT/P)
- mustine, pleurodesis* 37
- myelofibrosis, pleural effusion* 123
- myeloproliferative neoplasms* 123
- myocardial infarction* 58, 136
- N**
- naloxone* 85
- narcotics* 85
- narrow-band imaging (NBI), during*
semirigid pleuroscopy 29, 34,
 107
- National Emphysema Treatment Trial*
 (NETT) 19
- neurovascular bundle, intercostal*
 78
- Nissen fundoplication* 20
- nodules*
 miliary, tuberculous pleural
 effusion with 125, 126
 sarcoidosis 144, 145
 tumor *see* tumor nodules
- O**
- open lung biopsy* 46, 48
- ovarian carcinoma, metastases*
 120, 149
- oxygenation* 86
- P**
- pain* 61
 after MT/P 62
 analgesia for 84, 85, 86, 94
 before MT/P 61, 84
 during MT/P 61
 talc application and 61, 94
- pancreatitis*
 pleural effusions after 33, 135
 thorascopic splanchnicectomy
 50
- “paramalignant effusions”* 26, 26,
 33, 106
- parapneumonic effusions*
see pleural effusions
- paratracheal nodes, dissection* 21
- patient information, on MT/P* 57
- patient monitoring* 71, 86

- patient positioning *see* positioning of patient
- patient preparation 71
for anesthesia 84
for rigid thoracoscopy 86
- pericardial effusions
malignant 151
recurrent 50
- pericardial fenestration 50, 151
- pericardial window 20, 50
- pericardium 140, 151, 155
- personnel, for MT/P 14–15, 15, 71
- phrenic nerve 138
- pleura
adhesions *see* adhesions, pleural
hyperemia 126
mediastinal, venous varices 135
metastases 26, 27, 27
parietal 67, 104, 106, 120
biopsy methods 89, 89–90, 90, 91
hyaline plaque 114, 136
thickening 106, 129, 136
in tuberculosis 129
pathophysiology 67
procedures performed with VATS 19–20
visceral 67
thickened, in tuberculosis 129
- pleural biopsy 24, 78
closed needle 24, 25
malignancy diagnosis 26, 26–27
tuberculosis diagnosis 29–31, 30
number, in malignancy 90
parietal pleura 89, 89–90, 90, 91
semiflexible pleuroscope 89–90, 90
techniques, in rigid thoracoscopy 89–91
- pleural catheter, indwelling 36
- pleural drainage
history and development 5
total lung capacity and 47, 48
in tuberculosis 31
see also chest tube drainage; thoracentesis
- pleural effusions 20, 23–41, 135
in adenovirus infection 132
in animals 54
asbestos-related 113, 114
benign asbestos (BAPE) 28, 113
causes 23, 25, 25, 34
chronic 29
chronic congestive 136
chylous 33, 133
diagnostic MT/P for 20, 22, 23–34, 25
advantages 25
algorithm 24
image-guided 79
point of entry 78
research 56
talc poudrage with 29, 41
drainage *see* pleural drainage
exudative 25, 67
fibrinopurulent 32, 131
fibrinous 134
hemorrhagic 109, 110, 112, 117, 120, 133
hepatic 33, 135
idiopathic 33–34
incidence 23
indeterminate origin 32–33, 34
left-sided, appearance 37
liver cirrhosis causing 33
loculated rheumatoid 134
malignant 23, 25–29
biopsy method comparison 26–27, 27, 28, 28
early use of diagnostic MT/P 7
grading, spread 29
incidence/prevalence 25, 35
lung cancer causing 103–107
lymphomas/myeloproliferative tumors causing 122–123
management options 35, 35
mesothelioma causing 108–112
MT/P advantages in diagnosis 26–27, 27, 28, 35
paramalignant effusions vs 26, 26, 33
secondary to metastases 115–121
talc pleurodesis *see* talc pleurodesis (thoroscopic)
- management 35, 35–41
goals 35
methods 35–41
see also pleurodesis; thoracentesis
- massive 26, 79
moderate-to-large 26, 79, 88
myocardial infarction and 136
nonmalignant 33–34
pancreatitis and 33, 135
paramalignant 26, 26, 33, 106
parapneumonic 31–32, 32, 131
management algorithm 32, 33
pathophysiology 67
persistent 25
pneumonia and 33
previous symptomatic, MT/P technique 80, 81
pulmonary infarct with 33, 106, 133
recurrent 33
rheumatoid 33, 134
serous 104, 106, 107, 111, 116, 117, 118, 123
in systemic lupus erythematosus 133
therapeutic MT/P for 24, 25, 35–41
see also talc pleurodesis (thoroscopic)
- transudative 67
tuberculous 29–31, 124–129
biopsy method comparisons 29–31, 30
frequency 25, 29–30
MT/P development 6
see also pleural fluid; pleuritis; pleurodesis
- pleural empyema *see* empyema, pleural
- pleural fibroma, solitary 155
- pleural fibrosis 39
- pleural fluid 67
accumulation mechanism 67
aspiration method 79, 87
continuing production 63
evaluation 24, 26
formation 67
removal, before talc pleurodesis 93
see also pleural effusions
- pleural lavage 56
- pleural metastases 26, 27, 27
- pleural plaque, hyaline 110, 113, 114
- pleural porosity 42
- pleural pressure
negative 67
after talc insufflation 94
artificial pneumothorax 83, 83
positive (atmospheric) 67
- pleural space 67
access, introduction of endoscope 78–83
direct/video-controlled inspection 88
lack/obliteration 59
MT/P contraindication 58, 59, 78–79
- pleural symphysis 79

- pleural thickening, fibrous
106, 129, 136
- pleurisy, tuberculous, early use
of diagnostic MT/P 7
- pleuritis
fibrinous 114
fibrous, with pulmonary infarct
153
nonspecific 132
rheumatoid 134
see also pleural effusions
- pleuritis exsudativa *see* pleural
effusions, tuberculous
- pleurodesis 37–41
bleomycin 37, 38, 40
chemical, chest tube thora-
costomy with 37, 38
failure 38, 63
nonsurgical *see* talc pleurodesis
(thoracoscopic)
talc *see* talc pleurodesis (thoraco-
scopic)
tetracycline 37, 38, 40, 40
- pleuropericardial cyst 155
- pleuroperitoneal shunt 36
- pleuropulmonary adhesions 33
- pleuroscopes *see* semirigid (semi-
flexible) pleuroscope
- pleuroscopy (pleural endoscopy)
3, 9, 13, 15
see also medical thoracoscopy/
pleuroscopy (MT/P)
- Pneumocystis carinii* pneumonia
47, 53
- Pneumocystis jirovecii* (*carinii*) 44
- pneumonia
desquamative interstitial
(DIP) 146
pleural effusions after 33
- pneumonitis, interstitial 53
- pneumothorax 41–45, 67, 137–142
artificial *see* artificial pneumo-
thorax
catamenial 19, 45
classification 41, 41
definition 41
induction *see* artificial pneumo-
thorax
nonspontaneous 41
partial 79, 93
persisting, MT/P complica-
tion 62
preexisting partial 79
primary spontaneous 41, 41,
42–44, 138–140
management 42–44, 43, 56
- management in West Germany
22, 23
MT/P 19, 22, 23, 42–44
MT/P advantages 42
MT/P vs VATS 43
point of entry 78
predisposing factors 42
recurrence 42, 140
recurrence prevention 43–44
research 56
staging by MT/P 22
thoracoscopic talc pleuro-
desis 10, 44
VATS for 19–20, 43–44
- recurrent 19
- secondary spontaneous
41, 44–45, 141–142
bullous emphysema 44, 141
causes 44, 45
management 44–45
traumatic iatrogenic 45, 152
traumatic noniatrogenic 45
- pneumothorax needles 79, 81, 82
- positioning of patient 65, 76–77, 84
medical thoracoscopic sympa-
thectomy 49, 49
rigid thoracoscopy 86
- postoperative cavities, MT/P for
51, 52
- postpleuroscopic complications
60, 62–64
- premedication 84
- preoperative preparation
see patient preparation
- propofol 84, 85
- publications, on thoracoscopy
7, 12, 14
- pulmonary edema, reexpansion
62, 67, 95
- pulmonary emboli, recurrent 153
- pulmonary fibrosis 47, 134
idiopathic 146, 147
- pulmonary infarct
anemic, recurrent pulmonary
emboli 153
fibrous pleuritis with 153
hemorrhagic 153
pleural effusions after
33, 106, 133
- pulmonologists 15
medical thoracoscopy by 14, 69
techniques used by 13
- pulmonology, interventional 3
- ## R
- radiography, before MT/P 57, 65
- radiotherapy, prophylactic 63, 64
- renal carcinoma, metastases 120
- reports and documentation 99
- research, MT/P in 22, 56
in animals 54
- respiratory bronchiolitis associated
interstitial lung disease
(RBILD) 147
- respiratory insufficiency 58
- resuscitation trolley 70
- rheumatoid effusions 33, 134
- ribs 65, 66, 78, 82, 87, 138
hyaline plaques 110, 114
MT/P appearance 104, 116, 126,
138, 141, 142, 153
- rigid minithoroscopes 73
- rigid thoracoscope 4, 13, 29, 71, 72,
72–73
advantages 92
angles of vision 73
Karl Storz GmbH 13, 71, 72, 72
Olympus Medical Systems Europa
GmbH 73, 73
Richard Wolf GmbH 13, 73, 73
- rigid thoracoscopy 71, 72, 72–73,
73, 86–91
advantages 92
biopsy techniques 89–91
insertion of thoracoscope
79–83, 87, 87
inspection method 88–89
technique 86–91
semirigid technique compari-
son 92
- ## S
- sarcoidosis 47, 144, 145
- Sattler, Anton 10, 10
- scars, lung adenocarcinoma with
malignant retraction 151
- sclerosants, in pleurodesis 37, 62
see also bleomycin; talc;
tetracycline
- sedation 84
- semirigid (semiflexible) pleuroscope
4, 13, 15, 69, 71, 73–76
advantages 92
development and manufacturer
13–14, 69
LTF160 model 74
pleural biopsy with 89, 91
structure 73–74, 74

- semirigid (semiflexible) pleuroscopy
 auxiliary instruments
 75, 75–76, 76
 forceps for 74, 75
 narrow-band imaging during
 29, 107
 technique 92
 sensitivity, of MT/P 27, 28, 30
 silicosis 148
 Singer, J. J. 11
 single-bottle drainage system 95
 single-lung ventilation 16, 18
 single-port/entry site 13, 69, 78
 lung biopsy 90
 pleural biopsy 89
 skills needed for MT/P 67–68
 snoring 86
 solitary lung lesions, MT/P for 51
 specificity, of MT/P 27, 28, 30
 specimens
 evaluation 93
 size, rigid vs semirigid techniques 92
 splanchnicectomy 50
 spleen, enlarged leukemic 61, 63
 squamous cell carcinoma, lung 106
 staging *see* lung cancer;
 mesothelioma
 stapler, endoscopic 18, 19, 91
 stellate ganglion 138
 sterile conditions 70–71
 sterilization, equipment 70, 71, 74
 Steritalc formulations 93
 streptokinase 98
 subclavian artery 138
 subclavian vein 138, 149
 subcutaneous emphysema 60, 62, 63
 suction drainage
 see drainage systems
 sufentanil 85
 surgical thoracoscopy *see* video-
 assisted thoracic surgery (VATS)
 sympathectomy 21
 medical thoracoscopic 48–50, 49
 bilateral, positioning for 77
 equipment and technique 49
 indications 49
 results and complications 49–50
 sympathetic chain, thoracic 48–49
 sympathetic trunk 138
 sympatholysis, thoracoscopic
 49, 49–50
 symposia, on thoracoscopy 14
 systemic inflammatory response 63
 systemic lupus erythematosus 33,
 133
- T**
- talc 37
 composition 93
 distribution, after poudrage 39
 effect on malignant cells 41
 optimal dose 93
 particle sizes 40, 63, 93
 sterilization 70
 talc insufflation 44, 54, 94
 talc pleurodesis (thoracoscopic)
 3, 19, 38–41
 advantages 38–39, 39, 39, 41
 animal research 54
 bleomycin/tetracycline
 pleurodesis vs 40, 40, 41
 complications 40–41
 early or late 63
 inflammatory reaction
 41, 41, 62, 63
 pain 61
 with diagnostic MT/P 29, 41
 distribution of talc 39
 dose and particle size 93
 failure 63
 hepatic effusions 33
 history 3, 10
 mechanisms of action 39, 40
 mortality rates 63
 refractory effusions 33
 repeated 62
 research 54, 56
 spontaneous pneumothorax
 recurrence prevention 44
 talc slurry instillation vs
 39, 39–40
 technique 93–94
 chest tube placement 95, 95
 talc pleurodesis, VATS 38
 talc poudrage *see* talc pleurodesis
 (thoracoscopic)
 talc slurry 38, 39, 63
 thoracoscopic talc poudrage
 vs 39, 39–40
 teaching *see* training/learning
 techniques (thoracoscopy)
 MT/P 59, 59, 69–98
 anesthesia *see* anesthesia
 endoscopy room 69–71
 introduction of endo-
 scope 78–86
 patient monitoring 71
 patient preparation 71
 personnel 14–15, 15, 71
 phases 76–78
 pneumothorax induction
 see artificial pneumothorax
 point of entry selection 78, 79
 rigid thoracoscopy 86–91
 semirigid pleuroscopy 92
 sterility for 70–71
 see also equipment; rigid
 thoracoscopy; semirigid
 (semiflexible) pleuroscopy
 video-assisted thoracic surgery
 (VATS) 16, 17, 17–18
 tetracycline pleurodesis
 37, 38, 40, 40
 therapeutic MT/P 16, 23, 23, 24
 further development 12
 history 6, 7–10
 nontuberculous disease 7–8, 10
 tuberculosis 9–10, 11
 see also adhesions, pleural; talc
 pleurodesis (thoracoscopic)
 thoracentesis 23
 large-volume 37
 malignant pleural effusions
 26, 27
 serial 35
 see also pleural drainage
 thoracic anatomy *see* anatomy
 thoracic duct ligation 20
 thoracic lymphadenectomy 21
 thoracic surgeons 14, 15
 thoracic sympathetic chain 48–49
 thoracocautery 8, 8, 9, 11
 thoracoscopic talc pleurodesis *see*
 talc pleurodesis (thoracoscopic)
 thoracoscopy table 69
 thoracostomy, chest tube
 37, 38, 96
 thoracotomy, open 11, 34
 three-bottle drainage systems
 97, 97
 thymectomy 20
 thyroid carcinoma, metastases 149
 training/learning 3, 21, 65–68
 courses 100
 methods 100
 MT/P 3, 4, 12
 animal use 54–55, 100
 requirements for 100
 skills needed 67–68
 trapped lung 36, 62, 93, 106
 trocar 59, 72
 diameter 72
 history (Jacobaeus) 6
 introduction technique 79
 for rigid thoracoscopy 86
 for semiflexible pleuroscope
 73–74, 74
 tuberculoma, multiple bilateral
 152

tuberculosis, pulmonary
 diagnosis 30–31
 pleural effusions *see* pleural
 effusions, tuberculous
 therapeutic MT/P 9–10, 11
 tuberculous granulomas 30
 tuberculous pleurisy, early use
 of diagnostic MT/P 7
 tumor markers 26
 tumor nodules 89, 109
 adenocarcinoma of lung 106
 malignant mesothelioma
 109, 110, 111
 from metastatic cancers
 116, 118, 119, 120
 breast cancer 116, 117, 118
 small-cell lung cancer 104, 105
 two-bottle drainage system 96, 96
 two-entry site technique 13, 69, 73,
 78, 79
 lung biopsy 90
 parietal pleural biopsy 90, 90, 91

U

ultrasound guidance 79
 pleural biopsy 27
 usual interstitial pneumonia
 (UIP) 146
 uterine cancer, metastases 116

V

venous thrombosis, prevention 64
 veterinary medicine, MT/P in 54–55
 video-assisted thoracic surgery
 (VATS) 4, 14, 15, 21, 22–23
 anesthesia 16, 18
 anterior mediastinotomy *vs* 21
 cervical mediastinoscopy *vs* 21
 contraindications 18
 for diffuse lung diseases and
 biopsies 46
 entry sites 14, 16, 17
 equipment 16, 17–18, 21
 history and development
 3–4, 14–15
 indications *see* indications
 (for thoracoscopy)
 MT/P differences 16, 16–21
 overlap with open surgery
 18, 21
 parapneumonic effusions and
 empyema 32
 personnel using 14–15, 15
 for primary spontaneous
 pneumothorax 43–44
 procedure/technique
 16, 17, 17–18
 sympathectomy 49
 talc poudrage 38
 video-controlled inspection 88–89

W

water seal principle, drainage system
 95, 96, 96
 wedge lung biopsy/resection
 18, 48, 91
 white-light thoracoscopy
 (WLT) 107, 121
 wound infection 62, 64

Y

YAG laser, after lung biopsy 91