

Other symptoms patients can also complain about are dry cough, fatigue, non-pleuritic chest pain, weight loss, and fatigue. Night sweats and fever are seen less frequently. Worsening of symptoms develops along with the progression of the disease. These constellation of symptoms are known as constitutional B symptoms.

## Diagnosis

### Hemorrhagic Pleural Effusion

#### Hemorrhage-hammer with Pearl holding E-fuse Fluid

Pleural effusion can be seen in > 90% of mesothelioma cases. It is often exudative and hemorrhagic. Thoracentesis is performed to relieve the patient's symptoms and collect the fluid for cytological examination.

### Pleural Thickening

#### Thick Pearl

Pleural thickening is seen in more than 50% of chest X-rays of patients with mesothelioma. This is often due to pleural nodules that may be calcified thus thickening the thin membranes.

### Psammoma Bodies

#### Samoan

Psammoma bodies are a form of dystrophic calcification characterized by a lamellated concentric calcified structure. It occurs as a product of tumor cell degeneration and secretions. Psammoma bodies can also be seen in papillary thyroid carcinoma, somatostatinoma, meningioma, ovarian serous papillary cystadenocarcinoma, and prolactinoma.

### Calretinin

#### Calcium-cow-red-tin

Calretinin is a calcium-binding protein in neurons that is overexpressed in mesothelioma patients. After pleural fluid cytologic analysis, cytoplasmic and nuclear staining will reveal a "fried-egg" appearance, which is characteristic for mesothelial cells. Thoracoscopic-guided biopsy is the gold standard for diagnosis, but pleural fluid analysis is less invasive.

## Interventions

### Surgery

#### Surgeon

Surgery is limited to early-stage mesothelioma patients with good functional status. Treating symptoms and relieving the patient from their pleural effusion is necessary. A single treatment has not shown an improvement in survival. Combination therapy is recommended with other treatments, including chemotherapy and radiotherapy.

### Chemotherapy

#### Chemo-head-wrap

For some mesothelioma patients, chemotherapy is the best option. The first chemotherapy choice in unresectable mesothelioma is cisplatin with pemetrexed. Carboplatin is used to substitute cisplatin in elderly patients.