

Mesothelioma

Malignant mesothelioma is an uncommon tumor arising from the mesothelial cells of pleura. This tumor can be found on pleura, pericardium or peritoneum. It is very often caused by asbestos exposure.

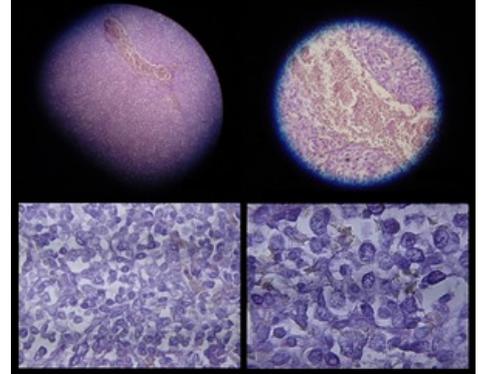
Pathology

The mesothelioma can be **macroscopically**:

- diffuse mesothelioma;
- localized mesothelioma.

Microscopically it can be:

- epithelial mesothelioma – contents mostly epithelial (cellular) component;
- fibrous mesothelioma – contents mostly fibrous spindle cell-like component;
- mixed mesothelioma – contents both of these components.



Microscopy of mesothelioma.

Clinical notes

Epidemiology

Mesothelioma is **uncommon**. The incidence is 2,000-3,000 new cases every year in United States (compared with lung cancer: 222,000 new cases per year in USA). Up to 80% patients suffering from the mesothelioma were exposed to asbestos at work. Average survival time is only about one year. ^[1]

Patient history

Mesothelioma can be occupational disease, because it is asbestos related disease.

- Asbestos exposure: workers in the manufacture of asbestos products, asbestos miners and millers, construction traders, power plant workers, boilermakers, shipyard workers, firefighters, even teachers and veterans. ^[2]

Mesothelioma is a late consequence of asbestos exposure. Can be found even more than 50 years after exposure!

Symptoms

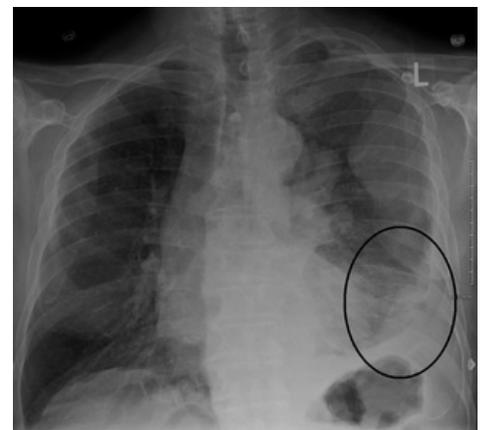
- **Major symptoms** are chest pain and shortness of breath. ^[3]
- Other symptoms could be persistent cough, anemia, weight loss, fever, abdominal pain and swelling. ^[4]

Diagnostic

- physical examination, lung function tests;
- X-ray;
- CT or MRI;
- thoracoscopy and pleural biopsy;
- definitive diagnosis is based on microscopic examination of the biopsy by pathologist!

Treatment

The options are surgical **resection** of tumor or **chemotherapy** or **radiation**, or **their combination**. Unfortunately the mesothelioma is diagnosed in an advanced stage, which causes only one year average survival time. The treatment depends on patient's overall health (if the mesothelioma can be found 50 years after asbestos exposure at work, you can expect advanced age of the patient...).



X-ray, mesothelioma of the left lower lung.

Notes

Other asbestos exposure related diseases are:

- asbestosis;
- lung cancer.

Links

Related articles

- Asbestos
- Asbestosis

External links

- American lung association, Mesothelioma (<http://www.lungusa.org/lung-disease/mesothelioma/>)
- Asbestos Disease Awareness Organization (ADAO) (<http://www.asbestosdiseaseawareness.org/>)

References

1. American Lung Association. *Understanding Mesothelioma* [online]. The last revision 2011, [cit. 2011-07-30]. <<http://www.lungusa.org/lung-disease/mesothelioma/understanding-mesothelioma.html>>.
2. The Asbestos Disease Awareness Organization (ADAO). *What are High Risk Occupations?* [online]. The last revision 2010, [cit. 2011-07-30]. <<http://www.asbestosdiseaseawareness.org/educational-resources/exposed-to-asbestos/>>.
3. KASPER, Dennis L - FAUCI, Anthony S - LONGO, Dan L, et al. *Harrison's principles of Internal Medicine*. 16th edition. New York : McGraw-Hill Companies, Inc, 2005. 2607 pp. pp. 1567. ISBN 0-07-139140-1.
4. American Lung Association. *Mesothelioma - Symptoms, Diagnosis and Treatment* [online]. The last revision 2011, [cit. 2011-07-30]. <<http://www.lungusa.org/lung-disease/mesothelioma/symptoms-diagnosis.html>>.