

# Diagnosis and treatment of pulmonary tuberculosis



With the improvement of prevalent cognition ,people are more concerned about their physical health , more and more people start to take health examination. Unfortunately, a number of people find that they actually have pulmonary tuberculosis in the physical examination. Facing with this unfamiliar disease, people may be panicked and have no idea about it.In fact, as long as it is properly managed and treated, pulmonary nodules are not terrible. So what is a pulmonary nodule? Lung nodules refer to circular or irregular lesions with a diameter less than or equal to 3 cm in the lungs, which can be manifested as shadows with increased density, and lesions with clear or unclear boundaries. Lung nodules of different densities have different malignancy probabilities. According to the density of nodules, lung nodules are divided into three categories: solid nodules, partial solid nodules and ground glass density nodules. Among them, the malignant probability of some solid nodules is the highest, followed by ground glass density nodules and solid nodules. (CJLC NCBI, 2016)

## Felt a little uneasy

Wang (Alias),36-years-old, was in his prime time of his life. Because of his poor family, there's no choice but work in a chemical plant in Fujian far away from his home. A month ago, Wang had a cough and no fever. Wang only thought it was good to rest after work, but his girlfriend thought it would be more reassuring to go to the local community hospital for examination. After CT examination, it was found that Xiao Wang had multiple ground glass nodules in his right upper lung, the largest being 0.6cm x 0.5cm. When he heard that something was growing on his lung, Wang immediately thought he had lung cancer and thought he had a terminal illness. In order to further diagnose Wang, the doctor transferred him to a higher hospital.



## Luck in misfortune

After referral to a higher-level hospital, the doctor performed an enhanced CT examination and found that Xiao Wang had multiple ground glass nodules and irregular edges. After communicating with the patient and family, the doctor decided to perform thoracoscopic wedge resection of the right upper lung. Intraoperative cryopathology confirmed non-small cell lung adenocarcinoma, carcinoma in situ. The mortality rate of the said lung cancer is extremely high, but if the tumor/nodules can be removed before the IIA stage, the 5-year survival rate is very impressive, reaching more than 60%, and the survival rate increases by 10% for each advanced stage.

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Due to the minimal damage of thoracoscopic surgery, Xiao Wang recovered very well and was able to communicate freely in less than two days. He even asked the doctor for advice. There are so many kinds of lung nodules, do all of them need to be operated on? Now only China has a staggering 100 million 20 million known lung nodules. The doctor said: Not all lung nodules require surgery. The doctor will make a comprehensive judgment based on density, size, shape, growth site and growth rate. When lobulation, burrs, and pleural depression appear, it suggests that it may be malignant. Some solid nodules with solid components > 50% often suggest the possibility of malignancy. Most of the persistent ground glass nodules are malignant, and a high CT value indicates a high probability of malignancy. The role of tumor markers is small, but when the PET-CT SUV value is greater than 2.5, the likelihood of malignancy is relatively large. Finally, according to clinical information such as age, occupation, smoking history and family history, a comprehensive decision is made. If the probability of malignancy is small, then 3/6/12 months of follow-up can be made. If the lung nodules develop towards malignancy, immediate surgery is recommended. If the size and shape of the nodules remain unchanged or the nodules shrink after anti-inflammatory treatment, then 12 months of follow-up can be continued. Finally, it is recommended that people over the age of 40 who smoke more than 400 cigarettes per year/who have smoked 400 cigarettes per year but have quit smoking for no more than 15 years, who are exposed to high-risk occupations (such as asbestos, chemical industry), who have COPD, who have a family history of cancer People with long-term exposure to kitchen, and people with secondhand smoke have low-dose CT screening at least once a year

