

### What is the role of an X-ray in the basic diagnostic testing of malignant tumours?



**Pic. 1.** The image of metastasis to both lungs in the X-ray of the chest.

X-ray is an imaging examination with Roentgen's rays (usually of chest) which is the oldest but effective and still most often applied. It is possible to state the presence of tumours in lungs and mediastinum based on the chest X-ray (e.g. lung cancer, cancers of the mediastinum and the metastasis in lungs originated from other – located outside of the lungs cancers). It isn't possible however to start the treatment basing exclusively on lung cancer imaging from the X-ray as you cannot be sure if the tumour is malignant. Firstly, one should obtain material for the microscopic evaluation, i.e. the inspection of spit, biopsy through thoracic wall or performed while endoscopy of the respiratory tract (bronchoscopy) or the evaluation of fluids from bronchi. If there are many tumours discovered in lungs, such an image may correspond to metastasis originating from malignant tumour located outside of the lungs. Subsequently, one should perform other imaging examinations enabling the localisation of the tumour which is a source of metastasis in other parts of the body.

It is also possible to assess the skeleton through an X-ray and reveal primary tumours of bones (non-malignant and malignant) and the metastasis in bones originating from other malignant tumours. In this case, the presence of nodular change itself in the bone does not indicate malignant tumour. Changes in bones can be also a derivation of disorders in other organs, e.g. in the case hyperparathyroidisms (glands regulating the concentrations of calcium in the body).

X-ray of the abdominal cavity does not help in diagnosing malignant tumours of the abdominal cavity but it is used in the evaluation of the ileus which might be caused

by cancer (malignant tumour is the most frequent cause of obstruction for older persons).

The above article comes from <http://onkologia.mp.pl/diagnostyka> and was published after giving consent by the publisher.