

## **Obstacles in early detection of lung cancer in the Republic of Macedonia**

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## Purpose

Lung cancer, a complex disease with serious implications not just for individuals and their families but also for society in general and health systems in particular, remains an important health challenge in Republic of Macedonia.

With reference to increasing trend in lung cancer incidence, in the Republic of Macedonia still exist difficulties in early detection of lung cancer from the past time, in addition to regular problems in developed countries

Determination the causes for the above mention problems and finding the way to overcome them.

## Methods and Materials

During the period of 6 months, our clinic's team has processed 24 lung cancer cases of different type and location which were subject to detailed analysis.

Age and sex of patients examined were as follows age  $65 \pm 9$  years, male 85%, females 15%

The methods used for evaluating the patients were as follows: :

Imaging findings (conventional [chest x-ray](#) radiography and MDCT with all modalities)

Laboratory examinations;

Clinical findings (bronchoscope biopsy and trans-thoracic needle biopsy)

## Results

The results of our research are as follow:

Fourteen of the patients were new detected cases of lung cancer in the late stage of diseases (3<sup>th</sup> or 4<sup>th</sup> stage).

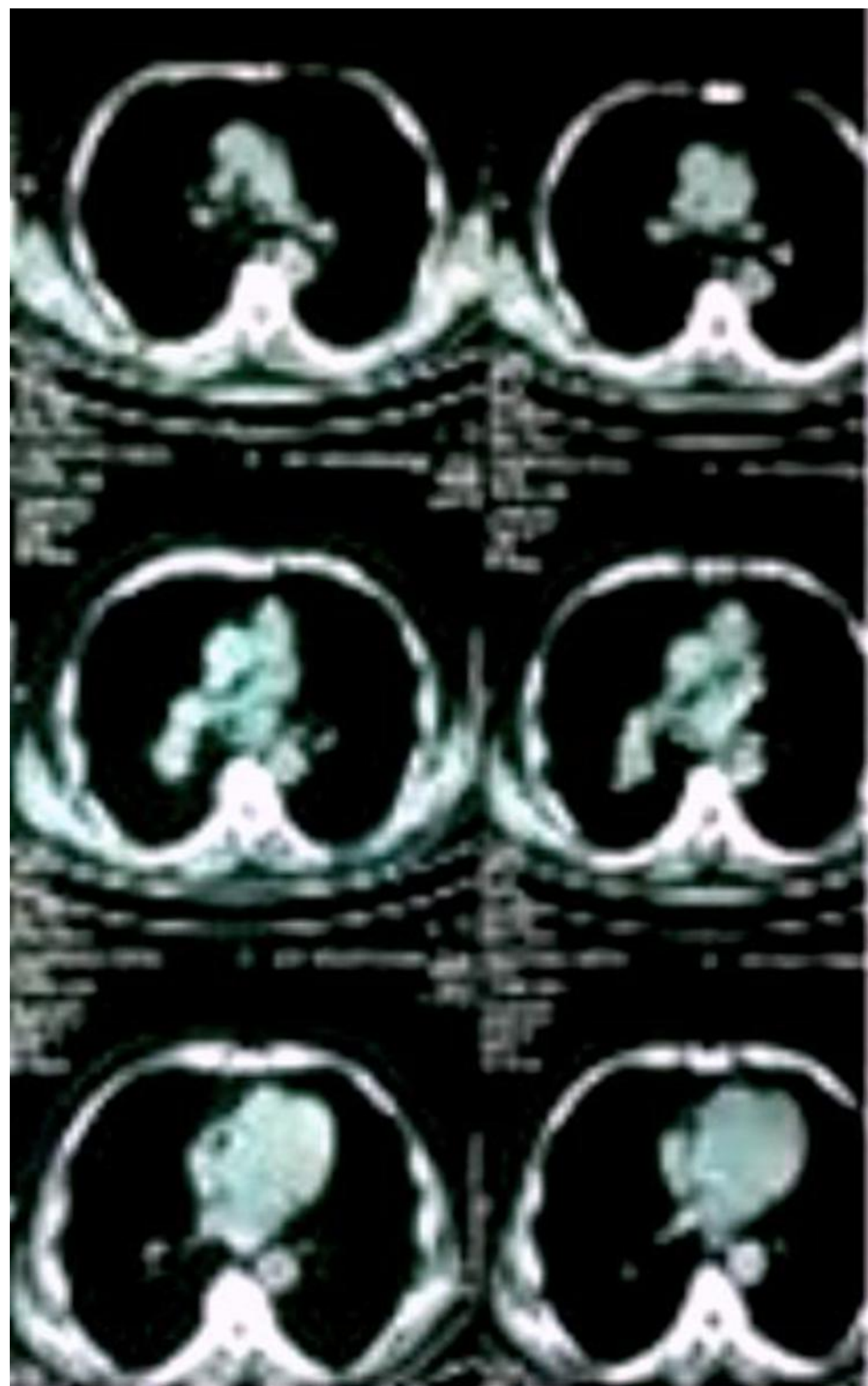
Eight of patients were found incidentally.

The other two patients left are already diagnosed and treated for lung cancer.

Fifteen of the patients were heavy smokers consuming 2-3 packs of cigarettes daily and tobacco chewing habits.

Almost all of the patients presented with lack of symptoms, except for long term coughing and some non specific symptoms such as dyspnea and chest pain.

**Images for this section:**

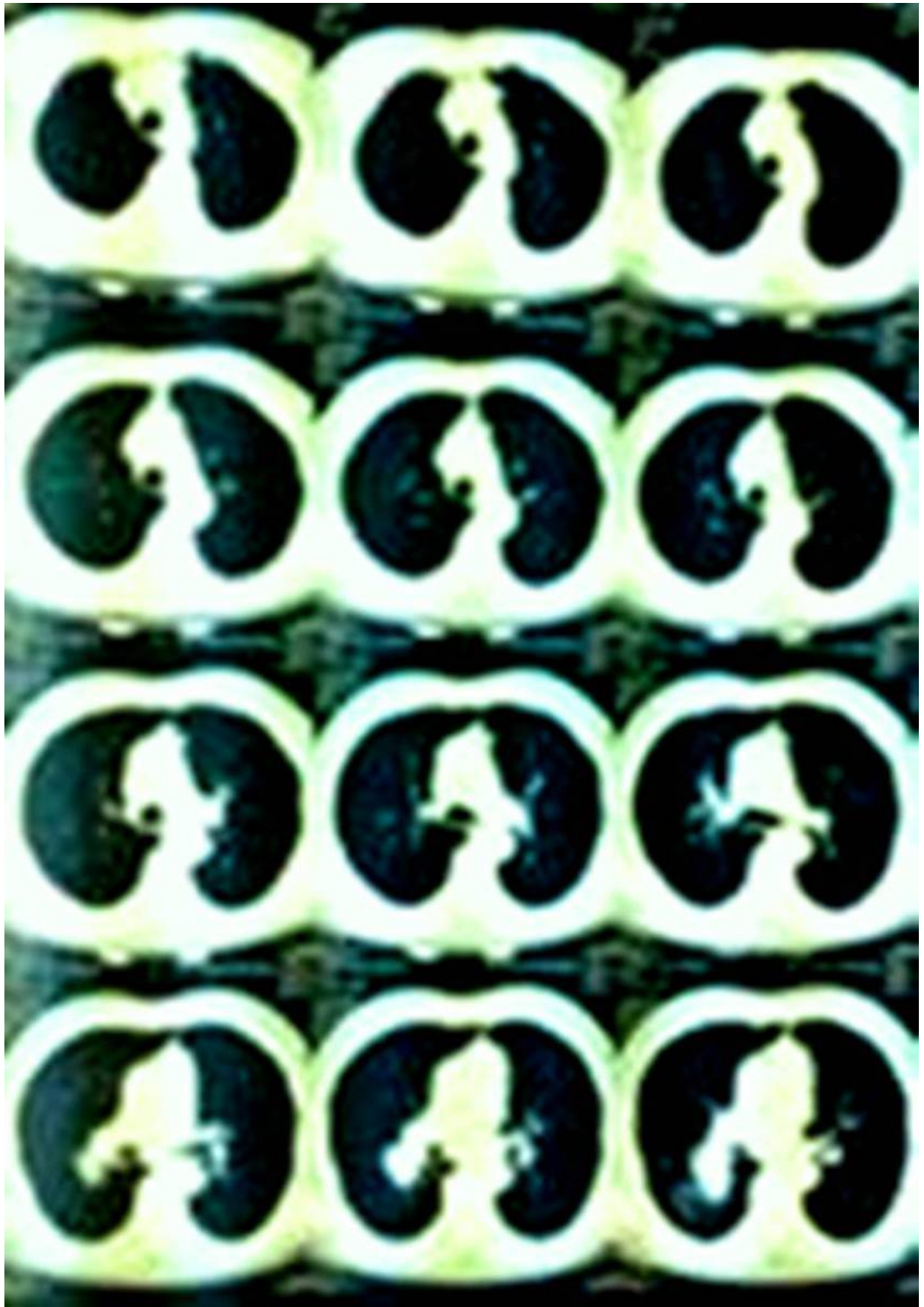


**Fig. 1:** Male, 1936y. cough for a month, heavy smoker for 50y.

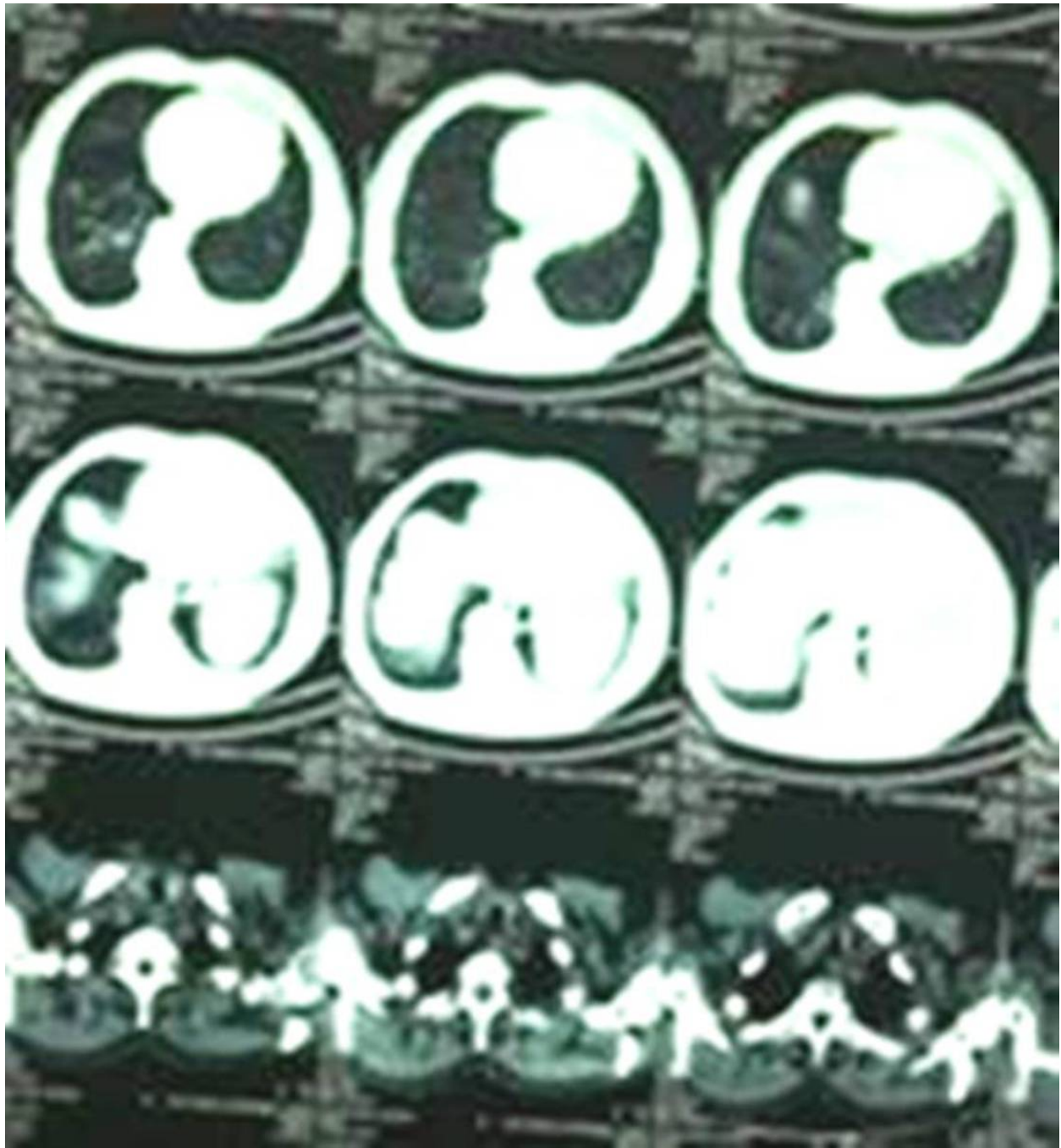


**Fig. 2:** the same patient, 1936y. lack of symptoms except for prolonged cough, heavy smoker



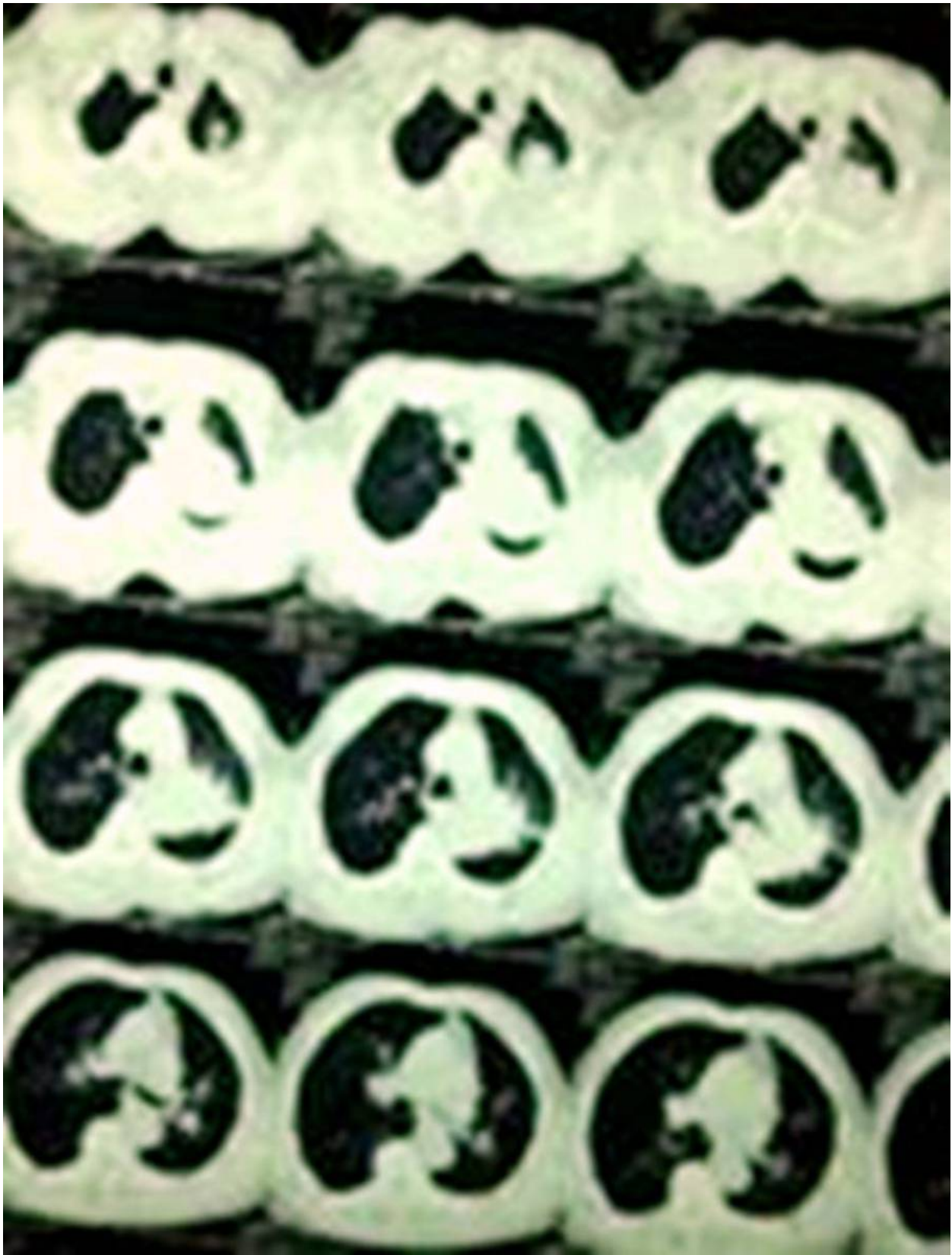


**Fig. 3:** Woman, 1954y. no smoking history, factory worker. Coughing with bloody sputum.



**Fig. 4:** Miner, 55y.old, long term smoker, difficulty breathing.





**Fig. 5:** Male, 1960y.,smoker, dyspnea, chest pain.





**Fig. 6:** Male, 1978y., smoker, dysphonia, bitter taste in the mouth and coughing for 2 months.

## Conclusion

Main obstacles in early detection of lung cancer were noticed as follows:

- Lack of symptoms in early stage of disease;
- Lack of an adequate medical equipment so far in the country;
- Lack of multidisciplinary teams cooperation;
- Lack of adequate public awareness;
- The strong difference in lung cancer survival between treated early- and late-stage lung cancer has formed the rationale for lung cancer screening and better systemic therapy. Cancer screening is a conceptually good approach for reducing lung cancer mortality; Lack of regular annual CT screening of individuals at high risk for lung cancer; Routine screening for lung cancer using imaging is not yet recommended by any major medical organization. However, more scientific evidence is awaited from ongoing randomized control trials before deciding for or against imaging-based screening for lung cancer.
- Surgical resection is the standard treatment in resectable.
- From a population perspective, the ultimate measure of screening effectiveness is mortality reduction and not increased life spans.

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