Comments

Chest pain can be many things

The story of painful noisy pneumothorax that was overlooked could have happened to any of us. The description of the patient, the search for a diagnosis and the subsequent discussion are exemplary, self-critical and absolutely something to learn from.

The story gives rise to many reflections – for example, over the diagnosis of pneumothorax and when it is safe to fly with or after a pneumothorax.

Nagasheth and Kurek found that chest X-rays had a sensitivity for revealing pneumothorax of only 32 % of that achieved with CT, while ultrasound scanning was far better, at 82 % (1). If the air cap is visible with an ordinary chest X-ray, the case is clearcut. If it is not seen, everything is not necessarily all right. Since CT can also detect a number of other potentially hazardous conditions related to chest pain, as well as pneumothorax, in this case CT thorax should have been included as part of the initial diagnostic process.

The patient had similar symptoms that improved spontaneously about two weeks prior to hospitalisation. We can guess that that was when he had his first air leakage to the pleura which then closed spontaneously until he developed renewed symptoms and was hospitalised. A short time after his discharge he took a long flight, and not long after his arrival he again developed chest pain, and a pneumothorax was then detected. The frequency of recurrence is high after first-time pneumothorax – about 40 % (2). It is probable – but not certain – that the flight played a part. In cases of recent pneumothorax treatment, or known high risk of repeat development of pneumothorax, and with the possibility of an air cap in mind, a chest X-ray should be taken and an ultrasound examination carried out before air travel. An overall evaluation should then be made of the risk associated with the planned travel.

Both in the USA and in the UK the official guidelines for flying on ordinary scheduled flights with or after pneumothorax are fairly restrictive despite a limited knowledge base (3). Szymanski et al. have written that 40 % of thoracic surgeons in the USA allow patients to fly with a small pneumothorax cap (3). Air travel after a lung biopsy with a small iatrogenic pneumothorax is almost always uncomplicated (4).

We have no Norwegian guidelines in this respect. At the University Hospital of North Norway we naturally prefer transport by land or by water, but given satisfactory lung function (5) and a less than 2 cm, stable (last 12 hours) cap over the top of the lung, we will also consider air travel. Large caps are treated or treatment is put on hold before flying, or the patient is allowed to travel with an installed, functioning thoracic drain. Non-filled residual volume without leakage after removal of lung tissue may also be accepted.

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