Tension Hydrothorax: Urgent Treatment Saves Lives

Dr. Jamal Sajid, Dr. Mudassar Baig
The Department of Medicine, Fairfield General Hospital, Bury

Aim
To be aware of potentially fatal Tension Hydrothorax, as timely intervention can be life saving.

Case
We report a case of 60 year old lady with the background of bronchogenic non small cell lung carcinoma, who presented with shortness of breath for past few days. While being in hospital for less than an hour, suddenly became unwell. She became cold and clammy with thready pulse of 140 beats per minute and unrecordable blood pressure, her respiratory rate increased to 40/min. Chest examination findings were consistent with large left sided pleural effusion with tracheal shift to right. Urgent chest x-ray showed massive left sided pleural effusion with significant mediastinal shift to right.

Outcome
Urgent needle thoracotomy confirmed presence of serosanguineous fluid with high pressure. We urgently placed 12F chest tube which drained 2L of fluid with immediate improvement in patient’s symptoms.

Discussion
Shortness of breath and slight mediastinal shift are not uncommon in the presence of large pleural effusion. It is not generally recognized, however, that in certain circumstances pleural fluid may accumulate under such greatly increased pressure that it results in gross mediastinal shift. Marked mediastinal shift and compression of the lung causes severe hypoventilation and respiratory acidosis. Pressure of the pleural fluid on the heart and great vessels inhibit central venous return, causing reduced cardiac output and circulatory collapse and metabolic acidosis. The entity of tension hydrothorax is rare but may be life threatening. The treatment should consist of prompt drainage without waiting for other radiological investigations such as ultrasound and CT Scan.

Consent
Patient has given us the written permission before we submitted this case report.

References