CASE REPORT:

Small needle decompression is equally effective like chest drain in a case of massive pneumothorax: a case report

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A 64 yrs,male patient presented with sudden onset of respiratory distress for which he was admitted in some other hospital.The symptoms were mild there on presentation which increased gradually and he was shifted to Glocal hospital, Krishnanagar for further management. The patient had a recent history of hospitalization in the same hospital for LRTI, urosepsis and arrhythmia. He is also a case of Ca-urinary bladder. He was recovered from the respiratory infection with a residual cough during the last visit.

On admission the patient was having respiratory distress and bouts of cough in between. In ER an immediate chest X-ray (**Fig: 1**) was taken but in supine posture and the patient was clinically examined with minimal decrease in air entry on the left side of his chest. The patient was immediately transferred by junior doctor to the ICU for further treatment as there were other critical cases in ER.

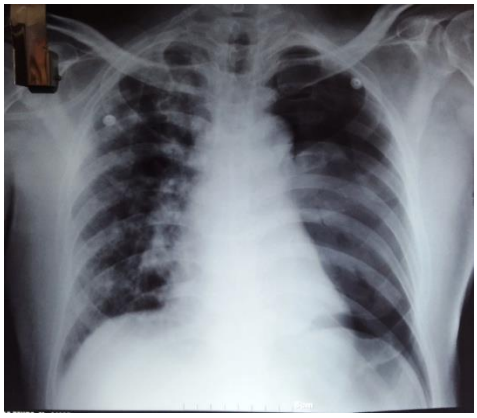

Fig 1: chest X-ray AP supine (in ER)

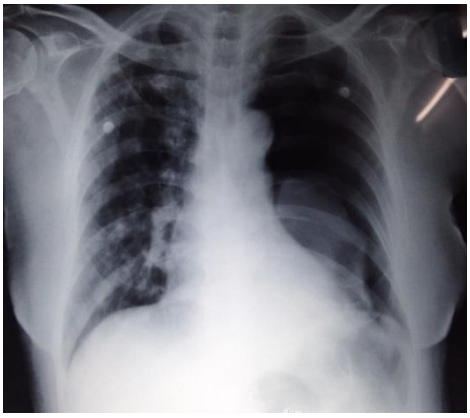

Fig 2: chest X-ray AP sitting (in ICU)

In ICU patient became very much dyspnoeic and in distress. He was fully conscious and oriented.

O/E-BP-150/90 mmHg, HR-142/min, SPo^2 – 93% (6 liters O^2 / min.)

Clinical examination by the on duty consultant found hyper resonant left lung along with almost absent breath sound. Although trachea was still in midline the immediate diagnosis was **impending tension pneumothorax**. Immediate needle decompression to release tension was the verdict followed by a chest drain in the same side. Fortunately we had an access to the portable X-ray and an exposure was taken **(Fig 2)** while arranging for needle decompression. With all asepsis and precautions needle decompression was done in the second intercostals space in the mid clavicle line. Initially it was drawn with a 10cc syringe with distilled water in it .A good amount of air bubble came out .Later it was decided to keep that in situ connecting to a water seal through a simple IV line(**Fig: 3**) Other measures of conservative treatment were continued.

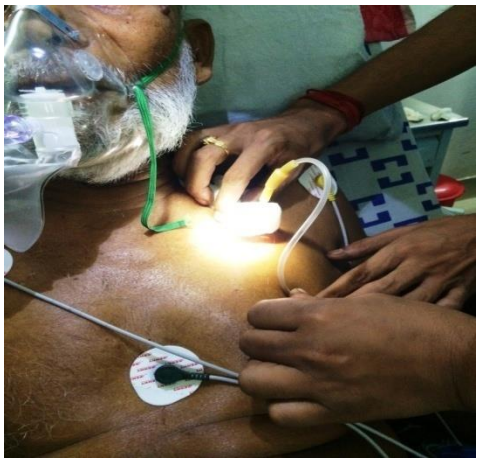

Fig-3: Needle compression being done

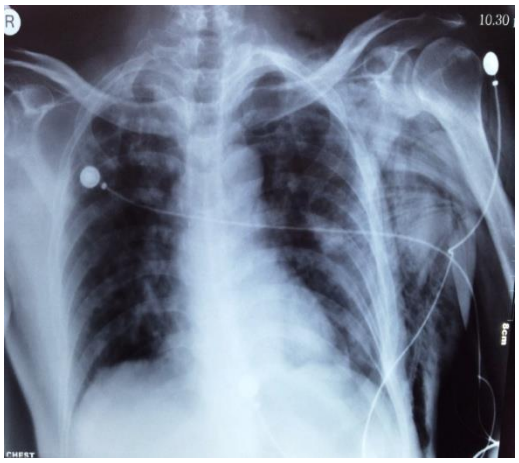

Fig-4: chest X-ray AP sitting

(Post Needle compression)

Patient got immediate relief from the procedure. He was less dyspnoeic and now he was maintaining a SPo2 of 98 % with 2 liters of moist oxygen only. All the vital parameters were within normal limit. While preparing for a definite management with a chest drain an X-ray chest (sitting) was taken (**Fig: 4**) which showed complete expansion of the left collapsed lung and no sign of pneumothorax. Surgical emphysema was found in the same side. Urgent general surgery opinion was taken who said to maintain the conservative approach. Patient has been recovering in our hospital now. So, the decision of chest drain was withheld.