



- DIAPHRAGMATIC PARALYSIS

- by

- DR KESER PILLAI, CONSULTANT
CHEST PHYSICIAN

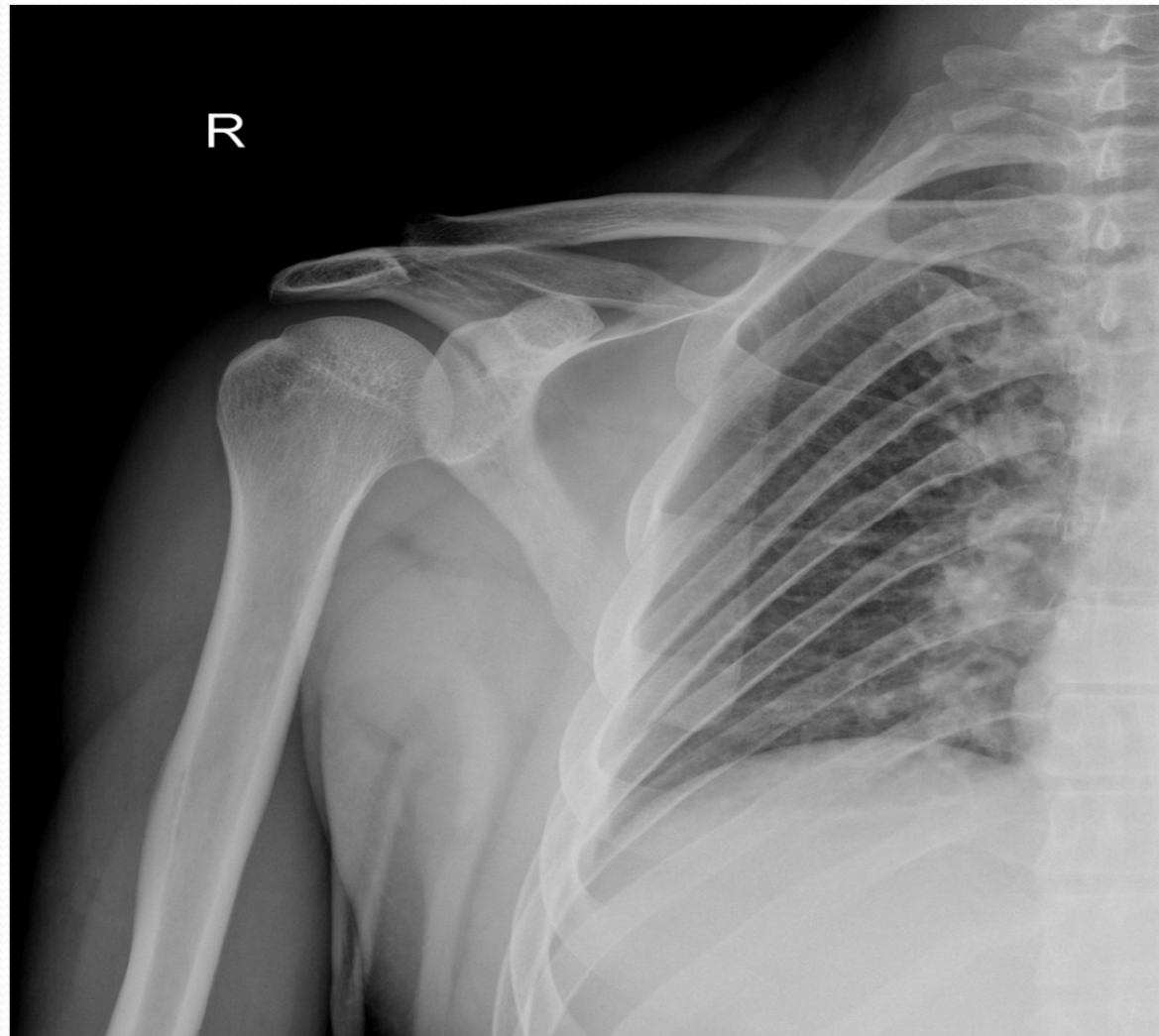
42 yr Male, Office Executive

Karateka, non-smoker

Late November 2011

- Sudden severe right shoulder pain
- Rx: traction 2 days

Right Shoulder



Business Trip to Japan, 3 days after discharge

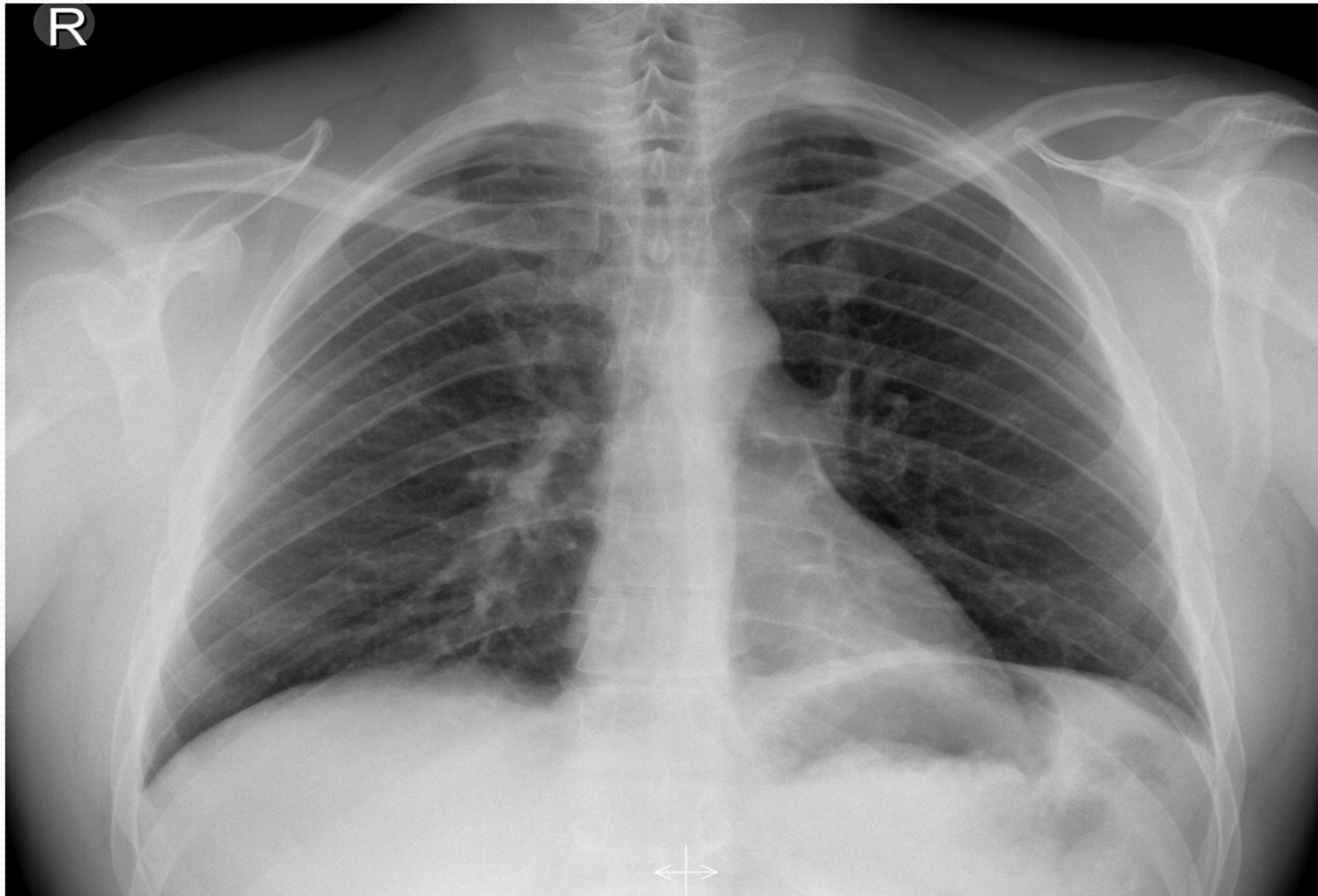
- Pain recurs, very severe
- Admitted – tested +++ including thoracic CTS in CCU, all normal
- Becomes very breathless and orthopnoeic
- Dx: Asthma

Seen 6th December 2011

- Still breathless and orthopnoeic, anxious
- Tender swollen muscle over scapular ridge
- Bilateral reduction in breath sounds
- Late expiratory wheeze – faint
- CVS – Normal

- Muscle tear and haematoma
- Sub-optimally treated asthma

Plain CXR



- Foracort inhaler
- Analgesia, lexotamil
- Spirometry

FEV₁ = 1.74 L (40%)

FVC = 3.19 L (60%)

R 54%

13th December 2011

- Better, but .chest feels compressed at deep end of swimming pool
- Dyspnoeic during karate
- Breath sound normal
- CVS normal

Assessment

- Residual airflow obstruction
- Anxiety – hyperventilation
- Oral steroid reversibility trial

On 27th December 2011

- Still breathless at the deep end
- Spirometry (pre – post steroids)

FVC: 3.19 → 3.84 L (+4.7)

FEV₁: 1.74 → 2.43 L (+21%)

R 54% 63%

27.12.2011

- Persistent dyspnoea: R/O pulmonary embolism
- Ordered CTPA & D-Dimer
- Both not done (note date!)

On 31st January 2012

- Dyspnoea: Lying flat, bending forwards, swimming pool
- **A test was requested**

- **Diaphragmatic screening** – Dr. P. C. W. C

- Spirometry lying and sitting **46% Fall in FVC supine**

Sitting

FVC 3.5 L (65)
FEV₁ 2.5 L (58)
R 72%

Lying flat

1.9 (35)
1.3 (30)
R 66%

- Textbook case of :
PARSONAGE – TURNER Syndrome

- a.k.a neuralgic amyotrophy of the diaphragm

MRI Brain



- Advised BiPAP
- Went to a specialist in Italy who confirmed the diagnosis
- Has not attended since

- Causes of bilateral diaphragmatic paralysis
- Multiple sclerosis
- MND
- GBS
- Polio and other viruses
- Quadriplegia
- Severe myopathy

Paradoxical breathing

End-expiration



Inspiration

