



“Doc! I have a strange pain in my right shoulder.”

Jerzy K. Pawlak, MD, MSc, PhD; and T. J. Krocak, BSc

Joseph, a 49-year-old diagnosed previously as neurofibromatosis Type 1, with hypertension and mild diabetes, started losing weight over the last six months and has recently developed severe pain over his right shoulder. This was reason to visit our clinic.

History

Joseph's history includes the following:

- Bell's palsy about 20 years ago
- Blackouts associated with alcohol consumption. These incidents have stopped since he began abstaining from drinking alcohol
- An overdose on medication due to marital problems
- Has always been overweight
- Five brothers and six sisters, all of whom have died primarily of CV disease
- He is the only member of his family with cutaneous disease
- Occasional smoker
- His medications include 10 mg q.d. of ramipril and 5 mg b.i.d. of amlodipine besylate for his hypertension, 25 mg q.d. of amitriptyline for sleeping and acetaminophen 3-p.r.n. for back pain
- He is on a diabetic diet

Medical investigations

Joseph's medical investigations on the day of presentation showed the following:

- Blood work



Figure 1. Joseph's back with multiple hyperpigmented skin tumours and *cafe-au-lait* spots. Some asymmetry of chest is visible—right side bulging.

- Hemoglobin : 99 g/L (Normal [N]: 140 g/L to 180 g/L)
- White blood cell: 32.3×10^9 /L (N: 4.5×10^9 /L to 11×10^9 /L)
- Hematocrit 0.3250 L/L (N: 0.4 L/L to 0.52 L/L)
- Sedimentation rate 70 (N: ≤ 13.0 mm/hour)
- Alkaline phosphatase 255 U/L (N: 50 U/L to 136 U/L)
- Gamma-glutamyl transpeptidase: 260 IU/L (N 15 IU/L to 85 IU/L)
- X-ray of right shoulder shows degenerative-type changes

Investigations also included a chest x-ray (Figures 2 and 3).

What's your diagnosis?

- TB
- Primary lung cancer
- Lung metastases
- All the above



Figure 2. Anteroposterior chest x-ray view.



Figure 3. Lateral chest x-ray view.

*Answer: D (All of the above)-
because any of the diagnoses
can be correct*

*After CT scan was done in the
ER, Final answer is B
(Primary lung cancer)*

Chest x-rays

There is a large, right-sided pleural effusion arising to the level of the hilum. The visualized portion of the right lung and the left lung are clear. The heart remains normal in size and the pulmonary vasculature is non-distended.

Diagnosis

Joseph was referred to Emergency where he underwent right thoracentesis followed by an infused CT scan of the chest and abdomen which showed a large necrotic tumour involving the right lower lung with transdiaphragmatic invasion of the liver and of the left atrium.

Treatment

In our case, prognosis was very poor—Joseph passed away. In a less severe case, the combination of chemotherapy and radiotherapy can be considered. **Dx**

Dr. Pawlak is a General Practitioner, Winnipeg, Manitoba.

Mr. Krocak is a Medical Student, University of Manitoba, Winnipeg, Manitoba.