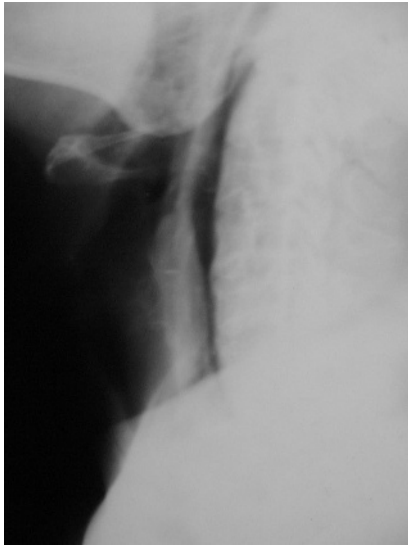


## IMAGES IN EMERGENCY MEDICINE .....

### Complications of yoga



**Figure 1** Radiograph showing air in the retropharyngeal space.

**A** 40-year-old man developed swelling of the face and neck associated with respiratory distress of sudden onset. These symptoms followed a yoga exercise called “pranayam”, which had involved a vigorous Valsalva manoeuvre. Clinically, he had subcutaneous emphysema in the neck, more predominant on the right side, and tachypnoea. Cervical radiographs showed air in the retropharyngeal space (fig 1), parapharyngeal spaces and subcutaneous emphysema. Chest radiograph showed pneumomediastinum. Subcutaneous emphysema, air in the retropharyngeal spaces and pneumomediastinum are usually complications of surgical procedures on the upper aerodigestive tract, trauma, intubations or ventilator malfunction, but they can occur after a Valsalva manoeuvre or spontaneously.

**A S Kashyap**

Department of Endocrinology, Command Hospital (Southern Command), Pune, India

**K P Anand**

Department of Medicine, Command Hospital (Eastern Command), Kolkata, India

**S Kashyap**

Department of Hospital Administration, Command Hospital (Southern Command), Pune, India

Correspondence to: A S Kashyap, Department of Endocrinology, Command Hospital (Southern Command), Pune 411 040, India; kashyapajits@yahoo.com

doi: 10.1136/emj.2006.036459

Accepted 23 March 2006

### Calcaneal avulsion fracture



**Figure 1** Left lateral ankle radiograph shows a calcaneal avulsion fracture with the fragment pulled cephalad by the Achilles tendon.

**C**alcaneal avulsion fractures may occur spontaneously, most often in patients with diabetes. The fracture may be missed because of the absence of trauma and the absence of tenderness in either malleolus. Operative fixation is usually required.

A 59-year-old woman with diabetes presented to the emergency department with pain in the left ankle for 2 weeks. The patient denied falling or twisting her ankle. Five days prior she was seen in a clinic and started on antibiotics. Examination showed swelling and ecchymosis. Neither malleolus was tender. The patient walked with a limp. An ankle radiograph was obtained (fig 1).

A lateral ankle radiograph shows a calcaneal avulsion fracture. The patient was fitted with a rigid boot and crutches. Subsequent operative fixation was achieved with a single 6.5 cm screw.

Calcaneal avulsion fractures may occur spontaneously and may fail to trigger radiographic evaluation based on a commonly used guideline.<sup>1</sup> Spontaneous calcaneal avulsion fractures are associated with diabetes. Patients with diabetes taking insulin, those with poor renal function or those with diabetic neuropathy may be at increased risk.<sup>2</sup> Definitive treatment requires fixation with a screw, pins or wires.

**T F Platts-Mills**

**M D Burg**

**Z T Pollack**

Department of Emergency Medicine, University Medical Center, Fresno, California, USA

Correspondence to: T F Platts-Mills, Department of Emergency Medicine, University Medical Center, 445 S Cedar Ave, Room 275, Fresno, CA 93702-2907, USA; tplattsmills@yahoo.com

doi: 10.1136/emj.2006.036855

Accepted 29 March 2006

#### REFERENCES

- 1 **Stiell IG**, Greenberg GH, McKnight RD, *et al*. Decision rules for the use of radiography in acute ankle injuries. Refinement and prospective validation. *JAMA* 1993;**269**:1127–32.
- 2 **Kathol MH**, El-Khoury GY, Moore TE, *et al*. Calcaneal insufficiency avulsion fractures in patients with diabetes mellitus. *Radiology* 1991;**180**:725–9.