# A white pupil

This six month old girl presents to the surgery. Her mother has noticed a difference in her daughter's eyes. She is otherwise well.

## **Question 1**

What is your spot diagnosis?

#### Question 2

Who gets this condition?

## **Question 3**

What is the aetiology?

### **Question 4**

What is the treatment?



Linda Calabresi

# Answer to last month's Brain teaser



## Answer 1

Horner's syndrome. The classic clinical findings associated with Horner's syndrome are ptosis, small pupil, ipsilateral loss of sweating and apparent enophthalmus.

## Answer 2

Horner's syndrome is characterised by an interruption of the oculosympathetic nerve supply somewhere along its route from its origin in the hypothalamus, through the superior cervical ganglion to the eye.

#### **Answer 3**

Given the history of heavy smoking, left shoulder pain and left hand weakness, the most likely diagnosis is a Pancoast tumour, a tumour of the uppermost portion of the lung. Clinical characteristics of Pancoast tumour include shoulder pain, loss of limb function, atrophy of the muscles of the hand, Horner's syndrome and dullness of feeling in the region of the upper chest.

The tumour is considered to be epithelial in its histopathology, but its exact origin remains uncertain. It is almost always associated with smoking and despite its small size and general lack of metastases it has a rapid and almost universal mortality rate.

## **Answer 4**

Differential diagnoses of Horner's syndrome include:

- congenital secondary to brachial plexus injury during delivery
- · preganglionic
  - central CVA, lateral medullary infarction, trauma, space occupying lesion, demyelinating disease
  - peripheral mediastinal mass, trauma, iatrogenic injury following thyroid surgery, Pancoast's tumour
- post ganglionic trauma, lesion of the cavernous sinus, carotid cavernous fistula, carotid artery aneurysm, carotid artery dissection, nasopharyngeal

carcinoma, vascular disease, infection (complicated otitis media) and migraine.

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Send your answers to arrive by 5 November. A voucher for medical books or medical equipment to the value of \$100 will be awarded for the first correct entry drawn. The winner will be notified by mail and the answer published in the November 2002 issue.

### Address entries to:

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The winner of the August Brain teaser is Dr Thu-Giang Nguyen, Cabramatta, NSW