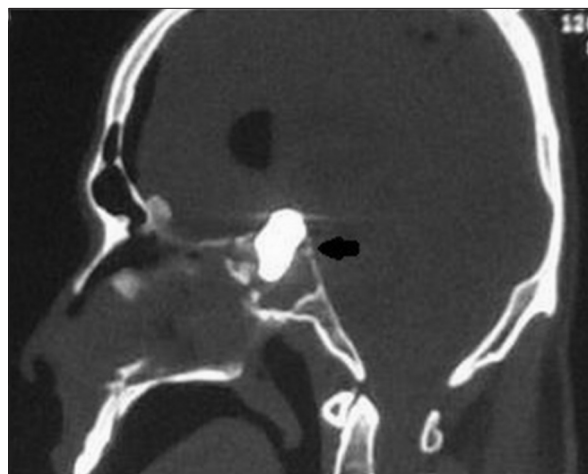


## Clinical Images

### Hypopituitarism following rifle cleaning accident



**Fig. 1.** Plain radiograph of the skull (lateral view) showing cartridge lodged in sella (black arrow) along with pneumocephalus (white arrow).



**Fig. 2.** Non-contrast computed tomography (CT) scan of the head (sagittal section) showing cartridge lodged in sella (black arrow).

A 45 yr old soldier of Indian Army was referred to the department of Endocrinology, Army Hospital (R & R), New Delhi, India, for evaluation in October 2014 with bleeding from the left nostril after being hit by a cartridge that recoiled accidentally after his rifle misfired during cleaning. He had abrasions around the left nostril. Rest of the examination was normal. Skull radiograph (Fig. 1) and computed tomography (CT) of the head (Fig. 2) showed that cartridge had lodged in the sella along with pneumocephalus. Hormonal profile at baseline [T3 (triiodothyronine) – 1.24 ng/ml (range 0.8-2.1), T4 (tetraiodothyronine) – 12.2 µg/dl (5.5-13.5), TSH (thyroid stimulating hormone) – 0.15 µIU/ml (0.5-6.5), LH (luteinizing

hormone) – 0.89 IU/l (2.5-9.8), FSH (follicle-stimulating hormone) – <0.5 IU/l (1-12), testosterone – 0.01 ng/ml (3-12), prolactin – 1.05 ng/ml (<25), cortisol basal – 2.65 µg/dl (12-25) and ACTH (adrenocorticotrophic hormone) stimulated – 15.48 µg/dl (normal response >18 µg/dl)] was suggestive of multiple pituitary hormone deficiencies. He underwent endoscopic removal of the cartridge through transnasal transsphenoidal approach. Postoperatively, he developed diabetes insipidus [polyuria, polydipsia with hypernatraemia (serum sodium 152 mmol/l) and elevated serum osmolality (calculated 321.7 mOsm/kg)] that responded well to desmopressin. During follow up, he was diagnosed

to have post traumatic optic atrophy of the left eye at four weeks and central hypothyroidism at three months on hormonal testing. He was treated with hydrocortisone, levothyroxine, injectable testosterone and nasal desmopressin as per the standard guidelines.

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