Intravesical thermometer: an unusual complication of vaginal temperature measurement

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A 28 year old nulliparous woman presented to the accident and emergency department after failing to retrieve a glass mercury thermometer from her vagina. She had been using the thermometer to measure her vaginal temperature on waking each morning as part of a fertility programme in order to ascertain the time of ovulation. Although oral or rectal temperature measurements are usually used to estimate core body temperature, in this instance the patient's general practitioner had recommended vaginal measurement as an acceptable alternative. In addition, specific popular health care books obtained by the patient had also recommended vaginal temperature measurements.

Initially digital and speculum examinations of her vagina were carried out—both were unremarkable. A plain radiograph of the pelvis was obtained. This clearly demonstrated the thermometer lying transversely within the pelvis (fig 1). Subsequent ultrasonography of the pelvis showed the thermometer within the urinary bladder. The patient was referred to the duty urologist who removed the thermometer via a rigid cystoscope under general anaesthesia without complication.

This is an extremely unusual case where a patient has passed a mercury thermometer per

Figure 1 Thermometer shown lying within the pelvis.

urethram into her bladder while attempting to obtain a vaginal temperature measurement. Although the vagina is an accepted site in which temperature readings may be obtained, it is quite clear that this case could have been avoided had oral or rectal measurements been preferred. In addition there can be no doubt that if, as suggested, measurements are taken immediately on waking before the patient is fully alert, misplacement of the thermometer is much more likely.

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Infected chronic extradural haematoma

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A 17 year old man was referred to Torbay Hospital with a two week history of headaches. These were frontal and bitemporal in location,

Figure 1 Computed tomogram of the patient's head.

worse on coughing and leaning forward, and with a clear pattern of increasing frequency and severity. There was no history of trauma, no history of nausea or visual disturbance, and no family history of migraines. Physical examination revealed no evidence of meningism or localising neurological signs but fundoscopy showed slight blurring of the disc margins bilaterally. The patient was afebrile and had a small tender soft tissue swelling over the right forehead. He was admitted for observation and investigation but soon after admission his headaches worsened and he started to vomit. Computed tomography of his head was performed urgently and revealed a calcified chronic right frontal extradural collection with some mass effect (fig 1). He was referred for urgent surgery at Derriford Hospital, Plymouth and underwent emergency frontal craniectomy with drainage of an infected extradural haematoma. *Streptococcus anginosus* was isolated from the

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collection, the patient was started on intravenous cefotaxime and transferred back to Torbay for further care. He received a total of three weeks of intravenous antibiotics and, at follow up five weeks following surgery, his computed tomogram had returned to normal and he was symptom free. During his recovery, he recalled an incident two years previously when he had been struck on the head while playing football and had lost consciousness. He did not obtain medical help after this and had no post-concussion symptoms.

Extradural haematomas are normally the result of trauma to the head and typically present with signs and symptoms of rapidly increasing intracranial pressure. The term chronic extradural haematomas is usually reserved for those haematomas that exist for more than 13 days after trauma¹ but there is no precise definition. They represent 7% to 14%^{2,3} of extradural haematomas and, in almost a quarter of patients, the cause is not determined.³ Infection of the extradural space is extremely uncommon but there is a recognised association of extradural abscess formation with chronic sinusitis and with otitis media. Secondary infection of a chronic extra-

dural haematoma is, however, unreported. *S. anginosus*, one of the *Streptococcus milleri* group of organisms, is considered to be commensal and is associated with abscesses and purulent infections particularly affecting the cardiac, abdominal, skin, and central nervous systems.⁴ The organisms are usually sensitive to common antibiotics but surgical evacuation is usually necessary when there is abscess formation.

Our patient had a chronic extradural haematoma, which we assumed to be a result of his head injury two years previously. The source of his infection is not entirely clear but it is conceivable that he had a transient bacteraemia that resulted in colonisation of his haematoma. We recommend that when assessing patients with a suspected space occupying lesion, an extended history should be taken looking for evidence of a traumatic origin.

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- 3 Viljoen JJ, Wessels LS. Subacute and chronic extradural haematomas. *S Afr J Surg* 1990;28:133–7.
- 4 Pisitelli SC, Shwed J, Schreckenberger P, *et al*. *Streptococcus milleri* group: renewed interest in an elusive pathogen. *Eur J Clin Microbiol Infect Dis* 1992;11:491–8.

Unusual cause of a raised right hemidiaphragm

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A 31 year old woman was brought by ambulance after a road traffic accident. She had been the driver of a car travelling at 50 mph before collision with a tree. The paramedics reported significant intrusion of the driver's door towards the patient's right chest wall.

On examination she had a tachypnoea of 24/min, diminished breath sounds in the right lung base, and a pulse rate of 113/min. A chest radiograph revealed a raised right hemidiaphragm (fig 1). The patient stabilised haemodynamically with a 2 litre crystalloid infusion.

She was nursed on a high dependency unit overnight.

Thoracoscopy in the morning was negative. Abdominal computed tomography showed a liver haematoma (fig 2). This presentation has not been previously reported. The patient made a good recovery with conservative management.

In stable patients computed tomography remains a valuable tool for the non-invasive definition of pulmonary, diaphragmatic, and abdominal visceral injury.

Figure 1 Chest radiograph showing raised right hemidiaphragm.

Figure 2 Computed tomography showing the liver laceration (arrow).

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