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Journal Scan

The Editors

Abstract

This is a short collection of interesting items pertinent to medicine and science in general. It gives a taste of some of the current work in hand around the world. We would welcome any contributions of this nature, just a short chatty narrative of an interesting or amusing article that you have seen or read.

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The Lost Ballpoint Pen

The case reports in the journal *Injury* continue to be a source of amazement and fascination. A recent issue (*Injury* 1991; 22(2): 148.) reports a lady presenting to casualty. Her history was the loss of a pen whilst 'playing' with her husband. Rectal and vaginal examination failed to locate the whereabouts of this pen; the patient agreed that she may have been mistaken and was discharged.

Two days later, following symptoms of dysuria, frequency and pain, the pen was located by X-ray in the bladder. It was removed successfully and the patient recovered. Physicians are asked to consider the urethra and bladder when other examinations fail to find a 'lost' foreign body, and are reminded that they will be amazed at the capacity of the bladder to hold surprises.

Reach for a Leech

Two articles from the same issue of *Injury* (1991; 22(2): 159-63). sing praises of the medicinal leech (*Hirdo medicinalis*). Popular in the nineteenth century, these blood-sucking creatures not surprisingly went out of favour.

However their ability to release local anaesthetic, a vasodilator and an anticoagulant has attracted the interest of microsurgeons.

Replantation or transfer of tissue following injury can only be successful if an adequate blood flow is maintained. The hero leeches are used to decongest venous compromised tissue and prevent tissue necrosis.

Dissecting Vertebral Arteries

An important cause of stroke in young people is an extracranial dissection of carotid or vertebral arteries (*J. of Neurology, Neurosurgery and Psychiatry* 1991; 54: 365-6). Dissection is most commonly associated with violent abnormal neck movements that occur in gymnastics, road traffic accidents or chiropractic manipulations. It is postulated that rotation and/or extension of the head compresses and stretches the vertebral arteries which are especially vulnerable because of their relatively fixed close relationship to the first cervical vertebra. This short report presents the first documented case of vertebral artery dissection in association with a tonic-clonic seizure.

A 34 year old woman with a history of well controlled epilepsy had a nocturnal tonic-clonic fit, and the following morning complained of unilateral occipital headache and paraesthesia of the left hand side of the face and left hand. The following day, mild left pyramidal signs, left somatosensory inattention and other left sided signs developed. On CT scan a small area of infarction in the right temporoparietal region could be seen. Angiography demonstrated a left vertebral artery dissection.

It is important to recognise dissection as a possible cause of stroke as treatment can then be aimed at preventing secondary thromboembolic complications by anticoagulant therapy.

Glaucoma Genes

Two French anthropologists recently observed a strong association between manic depressive psychosis and congenital juvenile glaucoma (News and Political Review, BMJ, 302: 868).

They constructed a genealogical pattern of sufferers of manic depressive psychosis, glaucoma and diabetes (often associated with glaucoma). The genealogical tree they produced led to the conclusion that the sufferers of congenital juvenile glaucoma descended from a single couple from a hamlet near Wierre-Effroy, Pas-de-Calais, who died in 1495.

This amazing discovery would suggest tracing all possible carriers of the autosomal dominant gene and offering early preventative treatment.

However under French law, the names of the 30 000 potential carriers of the gene cannot be identified and they cannot be told of their risk.

But all is not lost - the blood samples collected are being used to trace the genes involved in glaucoma.

Small babies, Big problems?

A study in Hertfordshire of 468 men suggests that reduced foetal and infant growth is associated with non-insulin diabetes mellitus (NIDDM) and impaired glucose tolerance in adult life (BMJ 1991; 303:1019-22). One hypothesis is that poor nutrition during critical periods of foetal growth results in impaired development of pancreatic beta-cell function. When nutrition becomes abundant there will be insufficient capacity for insulin production. Whether and when NIDDM occurs is dependent on the attrition rate of the beta-cells with age.

These findings suggest that the environmental influence of maternal nutrition as opposed to genetic factors can be an alternate explanation for the strong concordance of NIDDM in monozygotic twins.

White Wash

How often do you wash your white coat? Once a week? Once a fortnight? Once a month? Or even less often?

Out of 100 doctors studied in a Birmingham hospital, 29 changed their white coats less than once a fortnight. A further 5 wore their white coats for periods exceeding 8 weeks!

The purpose of the study was to determine the level and type of microbial contamination present on doctors' white coats in order to assess the risk of transmission of pathogenic micro-organisms by this route in a hospital setting (BMJ 1991; 303:1602-4).

The results showed that the cuffs and

pockets were the most highly contaminated areas, especially with *Staphylococcus aureus*. This organism was particularly common in white coats belonging to doctors' in surgical specialities. Other pathogenic bacteria were not isolated.

The level of bacterial contamination did not vary with the length of time the coat had been in use, but it did increase with the level of use by the individual doctor. This is because a maximum steady-state contamination of white coats occurs after one week of use; however the frequency of use determines how rapidly this level is achieved.

White coats are therefore a potential source of *Staphylococcus aureus* cross-infection in surgical wards, and it may be advisable to replace the white coat with a plastic apron before attending patients. Outside surgical areas there is little reason to recommend the changing of the white coat more than once a week, or for excluding the wearing of white coat in libraries and dining areas.

Football Fever

Is Scottish football exciting? Apparently not, claim some sections of English media such as London Weekend Television's *Saint and Greavsie*. This stimulated a group of physicians in the Western General Hospital, Edinburgh, to carry out a study to determine the haemodynamic response in football fans as they watched a football match (BMJ 1991; 303: 1609-10).

They monitored the blood pressure and heart rate of ten healthy male supporters from each of the Premier League teams Hearts and Hibernian over two home matches. They showed that systolic blood pressure and heart rate were significantly higher when the men were watching the

match than when they were at home. Heart rate was maximal just after the supported team had scored a goal (surprise, surprise).

The conclusion? Scottish football is indeed exciting, but is it as exciting as that south of the border?

Dangerous Dogs

Dogs that bite have recently come into prominence because of the large number of incidents highlighted in the media. A study of 107 dog bite victims was carried out in a plastic surgery unit in the West Midlands to determine the circumstances of dog bites and to identify risk factors (BMJ 1991; 303: 1512-13).

Males and females were equally bitten by dogs. However the majority of the patients (54%) were children under the age of 15 years. The dogs which bite most often are the Staffordshire bull terriers (15 cases), Jack Russell terriers (13), medium-sized mongrels (10) and Alsatians (9). They tended to be male dogs (85%).

Adults are usually bitten at home by their pet dog, while children were commonly bitten at a friend's, neighbour's or relative's. 60% of bites occurred when the victims were playing, petting or walking their dog. The remainder were judged to be unprovoked attacks.

Surprisingly Rottweilers and Dobermans did not feature significantly (7% of bites). However the study suggests that attacks by large dogs were usually sustained and produced more severe injury.

Cat out of the Bag

Continuous Ambulatory Peritoneal Dialysis (CAPD) is commonly used as a renal re-

placement therapy. It involves using the patient's peritoneum as a dialysis membrane by infusing fluid into the abdomen via a catheter and plastic tube. The fluid is removed several hours later and the process repeated throughout the day.

Peritonitis is a common complication, usually caused by the patient's own *Staphylococcus epidermis*. In an unusual case, a man undergoing CAPD presented after his kitten had bitten through his dialysis line (BMJ 1991; 303: 1610-11). Despite intravenous vancomycin the patient developed severe peritonitis and intravenous fluids were necessary until bowel activity returned. Culture revealed infection by vancomycin-resistant *Neisseria pharyngis*. The patient made a full recovery after gentamycin treatment.

Cats are therefore a significant hazard in patients receiving CAPD and should not be allowed near the patient when fluid exchange is being performed.

Disappearing Epilepsy

Kennedy and Schon have reported four cases of spontaneously resolving cerebral mass lesions associated with epilepsy in residents of the United Kingdom presenting to a London hospital (BMJ 1991; 302: 933-5). Such lesions may account for almost half of cases of adult onset epilepsy in India, but were previously considered rare in this country. The aetiology is unclear, but may be due to *cysticercosis* or another infectious agent.

Awareness of such cases is important because neurosurgical intervention is not indicated, and resolution may occur with anti-convulsant drugs with appropriate chemotherapy.

Kaposi's Sarcoma in AIDS

Beral *et al* have demonstrated that in over 2000 men with homosexually acquired AIDS in the UK, 23% had Kaposi's sarcoma (BMJ 1991; 302: 624-5). No men who had contracted AIDS by other means had the tumour.

The risk of developing Kaposi's sarcoma was significantly higher if the source of HIV infection was homosexual contact in Africa or the USA compared to one in the UK. These results lend weight to the idea that Kaposi's sarcoma is caused by a sexually transmissible agent in addition to HIV.

Dietary Salt and Blood Pressure

In three meta-analyses, a London group have looked at the relationship between dietary salt intake and blood pressure (BMJ 1991; 302: 811-24).

Comparing populations, a difference in salt intake of 100 mmol/day was associated with average difference in systolic blood pressure (SBP) of 5-10 mmHg, varying with age and initial blood pressure. The differences in diastolic blood pressure were about half as great.

These results were confirmed for within-population variation of SBP with salt intake. Analysis of trials lasting longer than 5 weeks showed that reduction of blood pressure on an individual basis could be achieved by dietary salt reduction with results closely matching those predicted by the population studies. It was estimated that a moderate reduction of daily salt intake of 50 mmol (about 3g) would reduce the incidence of stroke by 22% and of ischaemic heart disease by 16%.