The cutting edge of surgery 100 years ago

A useful way of reading about practice in any branch of medicine in the not too distant past is to look up the reports of the proceedings of the various sections of the British Medical Association Scientific Meeting for the year in question. So, to find out the topics which were interesting surgeons 100 years ago, you need go no further than the relevant pages in the second volume of the *British Medical Journal* for 1911.

The meeting in question was held in Birmingham from 25–28 July under the Presidency of Sir Henry Butlin, that year's President of the British Medical Association. Butlin was a distinguished general surgeon at St Bartholomew's Hospital, London, with a particular interest in cancers of the tongue and mouth, and an early exponent of radical block dissection of the neck for metastatic lymph node involvement in these tumours.

The Section of Surgery was chaired by the local Professor of Surgery, Thomas Chavasse, and the meeting opened with a discussion on general peritonitis. The key note address on this was given by Rutherford Morison, of Newcastle upon Tyne, a pioneer in the rapidly developing field at the time of aseptic abdominal surgery. His message was as true then as it remains today – the importance of early diagnosis and rapid surgical treatment; I wonder what he would say of today's reluctance to open the operating theatre at night, and then further delays as the emergency fights for a place in the theatre queue?

The principal causes were acute appendicitis and perforation of a duodenal or a gastric ulcer, all as a rule, he states, easy to diagnose. (Remember, in those days the clinician relied entirely on clinical features, with no help at all from the laboratory or from the primitive X-ray equipment.) Postoperative care comprised nursing the patient propped up in Fowler's position – the idea being that septic fluid would gravitate into the pelvis – and fluid replacement by slow rectal drip of warm normal saline. This method, termed 'proctoclysis', had been popularized by JB Murphy in Chicago. (Today's surgeon may smile at this, but my patients often had rectal saline drips when I was a house surgeon in 1948.) Morphia is prescribed: 'the effects of pain and restlessness are worse than the evil effects of the narcotic'.

It is interesting that this great authority stated, in those pre-antibiotic days, that: 'for surgical purposes, the name of the organisms present is of little avail for we now know that no mechanical means can get rid of them and the name of the variety is of little importance. Whatever germ is present, the prognosis is good if the pulse is good volume and not over 100. It is always bad if there is cyanosis, if the extremities are cold and the pulse is over 120 – a patient with cold hands rarely recovers'.

Alexis Thomson, Professor of Surgery at Edinburgh and a great disciple of Lister, opened the next topic of 'Technique of wound treatment'. His views were in some contrast to those of Rutherford Morison. The surgeon should be a trained bacteriologist, since he practices bacteriology every time he operates. The first and main essential is to prevent the entry of pathogenic organisms and the principles of Listerism 'probably would never alter' – words that ring true today. He used soap and water for routine skin preparation and had less than 4% infection in the records of 600 cases of 'clean' operations – this in a teaching hospital where the assistants changed constantly and were not always under his direct orders.

An interesting paper was de Courcey Wheeler's report, from Mercer's Hospital, Dublin, of two patients with abdominal aortic aneurysm, both probably syphilitic in origin, treated successfully by introducing percutaneously several yards length of wire via a trocar (Colt's operation), followed by antisyphilitic treatment with the newly discovered drug Salvarsan. In both cases the pulsating mass resolved.

Alex MacLennan, of the Western Infirmary, Glasgow, pointed out that fractures of the scaphoid were once regarded as a rare injury, and misdiagnosed as 'wrist sprain'. Now that X-ray equipment was available, they were found to be a comparatively common injury. If there was much displacement or if healing failed to take place under conservative treatment, he carried out removal of one or other fragment of the bone.

I found the most interesting paper at this meeting 100 years ago was given by William Hill, ear, nose and throat surgeon at St Mary's, London. 'On gastroscopy – a plea for its routine employment by gastric experts' was an illustrated paper, well ahead of the times. Modern endoscopy really dated from the cystoscope invented by Max Nitze of Vienna in 1877, using an incandescent wire lamp. This was much improved 10 years later when he used Edison's miniaturised filament wire lamp. The original gastroscopes, used in Europe some 40 years before, used a head lamp shining down a straight metal tube. Chevalier Jackson introduced a metallic filament lamp at the upper end of the scope in 1905, but these dangerous and poorly lit devices were only suitable for viewing the oesophagus and the cardiac end of the stomach.

In 1910, William Hill introduced inflation of the stomach with air and the use of a slanting glass mirror to view the stomach on the periscope principle. In the tolerant patient, the procedure was carried out in the upright position, the patient seated on a low chair, under local cocainisation. In less tolerant subjects, chloroform anaesthesia was used. Erosions, benign and malignant gastric ulcers and pyloric stenosis could be seen. In future he suggested that biopsies might be performed and foreign bodies removed. These instruments were dangerous, with a real risk of oesophageal or gastric perforation, and were never widely used.

In 1953, when I was Norman Tanner's senior house officer, we ran one of the few gastroscopy outpatient clinics. I did a couple of dozen, but did not enjoy the sufferings of most of the patients and treated a couple of oesophageal perforations (fortunately not mine). All this was revolutionized, as with the rest of endoscopy procedures, by the introduction of the Hopkin's fibreoptic and flexible instruments. **BJHM**

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