Personal View 1: Not the English Patient

Dr R P (Jock) Harbord, MD, FRCA, New Knoxville, Ohio, USA

Your Editor, in inviting me to write this article, told me that anaesthetic training in the UK is creeping back up to 8 years and that many trainee anaesthetists are unmotivated, apathetic and bored. It wasn't quite like that when I was learning anaesthesia. In fact my training in anaesthesia was completed as a medical student at the Liverpool Medical School where we gave 20 anaesthetics under supervision. There was also a course of lectures from Dr R J Minnitt. This was all the training I had to equip me as an anaesthetist by the time I obtained the MB Ch.B. in 1936. As a house surgeon and without any further training I gave many anaesthetics using either open ether, with and without ethyl chloride inductions, or open chloroform. The visiting anaesthetist, who had been serving for many years, had on one occasion to be awakened during an operation. She had been sniffing chloroform and had gone to sleep while the patient had a cardiac arrest and died. She then left town and was not heard of again. I filled her place as well as continuing to be a house surgeon.

In 1939 I was appointed part-time demonstrator in anaesthesia at The University of Liverpool. I was the only Visiting Anaesthetist at Smithdown Road City Hospital of 1,000 beds (a tough job for a beginner). I think I was the first to specialise in anaesthesia in Liverpool. I gave an anaesthetic to a baby on the kitchen table while Cecil Gray performed a circumcision.

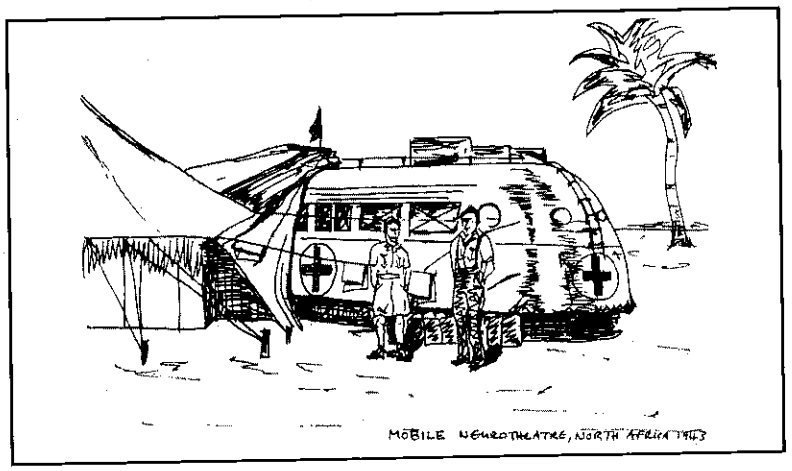
In 1942, after surviving the Liverpool air raids (as well as a Zeppelin raid on Hull in 1916 when my home was demolished), I joined the RAMC and began to work as an anaesthetist at Bangor, Northern Ireland. The work was hazardous because our "surgeon", who had previously worked in a VD hospital, was rather too keen in performing open cardiac massage (and had written a paper on this in the Lancet). He operated on a young pilot officer with a small ureteral stone and inadvertently performed a nephrectomy. A hemothorax resulted from attempts to control the haemorrhage. Fortunately the patient recovered after transfusion however the surgeon could not find a suitable vein, despite help from the Officer Commanding Medical division, who held retractors to assist him to expose a vein that was elsewhere. After he left the room I cannulated this vein without difficulty.

A few days later I left for Oxford to join a neurosurgical unit. It was assembling stores and equipment ready for action at an unknown destination under a Major Kenneth Eden[1], with two surgeons, a neurologist, and two operating room nurses. After boarding the Orcades in Liverpool we sailed to join a large convoy with its naval escort in the Atlantic. Four weeks later, despite reports that German submarine wolf packs were looking for us, we reached Durban, South Africa. We disembarked but our ship was torpedoed as she left the harbour. Our neurosurgical mobile theatres and supplies came separately but they were sunk in the Mediterranean.

After a month of inactivity outside Durban, Eden and I were ordered to Cairo. Since we were to fly over neutral territory we had to be disguised as civilians, and went first to Madagascar, and from there by sea plane to Entebbe on Lake Victoria. After three days we followed the Nile to Cairo. Here we were detained in jail because we had not been inoculated for yellow fever.

Eden and I were asked to see Randolf Churchill at the 15th Scottish Hospital in Cairo because he had received a head injury. He had been with some commandos on a raid of Rommel's headquarters in the desert but Rommel was not there. When Eden and I entered Churchill's room he complained that we were half an hour late. He said "who the hell are you" Eden replied I am Kenneth Eden, a cousin of Anthony Eden. We then conducted an examination and he was given some Aspirin tablets. We never saw him again.

After the battle of El Alamein, Eden and I embarked on a hospital ship sailing by night, fully illuminated, from Alexandria to Benghazi, and there joined our main unit which had come by road. We began to work in tents. Unexpected help came from an engineer officer who converted an Italian luxury motor coach to a mobile operating vehicle[2] (see fig over page). Seats were removed, a scrub room furnished and the functionless engine replaced by a diesel taken from a bombed train. Patients were



managed postoperatively in a large tent connected to the bus. Anaesthesia usually involved Omnopon and Scopolamine with local blocks.

My predecessor in North Africa, Bob Cope (Great Ormond Street Children's Hospital) rather than using open ether or cyclopropane suggested continuous iv Thiopentone combined with local anaesthesia for the majority of the head injuries. Its draw back was that one had to maintain jaw support but we were able to give oxygen via an adapter, which was designed for captured German oxygen cylinders. Endotracheal anaesthesia using cyclopropane with thiopentone induction and continuous i.v. thiopentone was needed when two maxillofacial surgeons and an ophthalmologist worked with us, but for months I was single-handed. Difficulty in understanding the nature of our unit was evident when an angry Brigadier demanded to know who had sent us and "what was a neurosurgical unit?". "Don't tell me now; send me a letter". That night he went to a party and was hit on the head with a bottle but we sutured his scalp without having to write the letter.

General surgical units at the forward battle zones worked on all head injuries and when their patients eventually reached us some of the wounds did not heal by first intention. We appealed to the Brigadier who refused to move us to these forward zones, curtly saying that he "could not be expected to explain the plan of campaign to every officer". Kenneth Eden then quietly said to me, "Let's pray for a General with a small hole in his head". Some twenty minutes later we were surprised by the arrival of the General of the Corps with a wound over the central sinus. He recovered after a long operation complicated by bleeding which had to be controlled by muscle grafts. Soon after a complimentary visit from the general's staff, we explained our difficulty and were relocated satisfactorily to the forward battle area.

Casualties were managed on stretchers but twelve beds with mattresses were reserved for our patients. We overheard the neurologist, Captain Llewellyn Smith, repeatedly instructing a patient to refrain from his habitual bed-wetting. The next night the Casualty Clearing Station received over a thousand casualties and our patient did not wet his bed that night. He got into the bed of a soldier in the next bed and wet that one! This we thought was a triumph for neurology.

Following the advancing army in North Africa we moved frequently. Arabs traded eggs for tea, but one day sixty surgical gowns were stolen. On application for replacements I was asked if we had any of the originals. We had one; it had to be torn into sixty pieces before applying for replacements. A patient from the Fourth Indian Division provided a diversion by repeatedly coughing on the endotracheal tube before an ascaris worm obligingly slithered out of the expiratory valve. Inactive periods followed prolonged periods of activity; once we operated continuously for 72 hours on end.

Captain John Gillingham (later Professor of Neurosurgery, Edinburgh), who shared a tent with me, became ill with bulbar poliomyelitis fortunately he recovered. After the fighting in Africa was over, we followed the army to Sicily and then to Italy, where Kenneth Eden was transferred to the eastern side where he died from bulbar poliomyelitis.

In Italy the Deputy Director of Medical Services visited us in a very large hall where several operations were being performed simultaneously with open ether as well as other anaesthetists using N_2O and O_2. He noticed that we had an open fire lit at one end, warned of the danger of explosion from ether and left somewhat abruptly because he was not taking any chances. However just as he entered a nearby operating room a shell whistled through the ceiling depositing dust into an opened abdomen before landing outside without exploding.

At Vasto on the East coast of Italy eighteen patients were awaiting surgery. By the end of the first day there were more to be done. Profiting by previous experiences of our abilities after long periods of work, we stopped for a rest at night, returning each day refreshed after a good breakfast. We continued for months like this without relief, never quite catching up. After a replacement arrived I joined the British Traumatic Shock Research Team under RT Grant FRS. We worked at first on casualties in the east and later near Casino in the west of Italy. Here a surgeon, J C Goligher (Obituary, The Times, February 1998), who was later to be Professor in Leeds, arrived by parachute to set up an operating tent. I never could reason why he requested a local and sphlanchnic block for the first abdominal procedure. E B Reave measured blood volumes in those with limb injuries. Later we found that blood loss could be reliably assessed by physical signs, (hypotension, tachycardia and vasoconstriction) combined with a clinical estimate of the extent of injury.

After the war I became Reader and head of the first full time Anaesthetic Department in the University of Leeds. A house at 24 Hyde Terrace served for lectures and administration and with help from the MRC the basement was converted into a workshop. A lecturer (anaesthetist) was appointed as well as a biochemist and two workshop technicians. We also had a laboratory in one of the large hospital wards. Medical students had lectures and were supervised by hospital staff anaesthetists. Mobile equipment made for use in the operating theatres was designed for the measurement of pulmonary ventilation during anaesthesia.

Comparisons of 'Alveolar' carbon dioxide, measured by an infra red analyser, and simultaneous arterial blood carbon dioxide suggested a ventilation perfusion change not present in conscious subjects. For his part in this work a Dr. Peter Ramwell was awarded a PhD. Later a gathering of physiologists, and others interested in ventilation perfusion abnormalities, met in Leeds and the result of their discussions was published.

When the Yorkshire Society of Anaesthetists visited Copenhagen we learned how Dr. Ibsen, an anaesthetist, had significantly reduced the mortality of acute poliomyelitis. We also learned the value of respiratory therapy in the management of prolonged mechanical ventilation. A Dr. Ablett later consolidated this knowledge by organising a centre for the management of severe tetanus in Leeds. About this time, as a member of the Board of the British Journal of Anaesthesia, I had the idea of educational issues, and Cecil Gray agreed that I should edit them. Educational symposia then followed and were designed to integrate anaesthesia with basic sciences.

Much was learned from a ten-day visit to Albert Schweitzer in the Gabon jungle hospital and Leper colony, which he had financed and constructed, with only native help, in the forests which had first to be cleared. Here were two surgeons with a Jewish physician whose arm had been branded by the Nazis who had murdered his family. The nurse missionaries gave general anaesthesia when local anaesthesia was not practical. Here dogma was replaced by love. Patients came by canoe from many miles of jungle forests inhabited even then by cannibals. Payment for hospital services was in kind. Husbands worked on road constructions and their women did the hospital washing. Divorce was unusual perhaps because the man's dowry was a herd of cows, which had to be returned. We lived on an almost vegetarian diet although I tasted crocodile, but I escaped being eaten when a canoe capsized during a typhoon in the Ogowe River.

After the beginning of the National Health Service the opportunity materialised for me to work at the Massachusetts General in America but that is quite a different story.

References

1 Eden K. Mobile neurosurgery in warfare. Brit. J. Surg. 31. 1944. 324-328.
2 Ogilvie W.H. War Surgery in Africa. Brit. J. Surg. 31. 1944. 3313-324.