

John Stough Bobbs: father of gall bladder surgery

This year marks the 200th anniversary of the birth of John Stough Bobbs (1809–1870), who was the first surgeon to carry out an elective operation on the gall bladder for gall stones.

Biliary stones have been found in Egyptian mummies and have presumably caused symptoms since the earliest days of mankind. Certainly ‘inflammation of the liver’ was recognized by the ancient Greeks. Giovanni Morgagni, that great 18th century Italian pathologist, reported 20 autopsies in which he found gall stones, while Jean-Louis Petit in Paris in 1743 described the case of a woman in whom he drained what he thought was an abdominal abscess; it was, in fact, an inflamed and distended gall bladder. Several months later, he was able successfully to extract a calculus the size of a pigeon’s egg from the persistent fistula.

However, it was a physician who first encouraged surgeons to carry out deliberate surgery for gall stones. John Thudichum (1829–1901), Physician and Lecturer in Chemical Pathology at St. Thomas’ Hospital, London, wrote a detailed treatise on the chemical composition of biliary calculi. In 1859 he published a paper in which he encouraged the surgeon to fix the gall bladder to the abdominal wall through a small incision, then, having allowed time for adhesions to form between the two, to open the gall bladder, extract the stones and predicted that the resultant fistula should heal spontaneously.

However, it was not until 1867 that John Stough Bobbs, who was apparently unaware of the paper by Thudichum, carried out this procedure successfully, and published the case report the following year.

Stubbs was born in 1809, a Pennsylvanian of Dutch extraction. He trained at Jefferson Medical College in Philadelphia

Professor Harold Ellis is Emeritus Professor of Surgery, Guy’s, King’s and St Thomas’ School of Biomedical Sciences, London SE1 1UL

and served as an army medical officer in the American Civil War, in which he became skilled at giving chloroform. He went on to become the foundation Professor of Surgery at the new medical school in Indianapolis.

The detailed report of his pioneer operation appears in the *Transactions of the Indiana State Medical Society* for 1868 under the title of ‘Case of lithotomy of the gall bladder’. The patient was a thin woman aged 30 years. She had noticed a lump in the right side of her abdomen which had gradually enlarged over a period of 4 years. There were attacks of pain, and food and drink both brought on ‘much distress’. Examination revealed a tender mass in the right iliac fossa and the whole abdomen was tense and rather protruberant. Vaginal examination disclosed no connection between the swelling and the pelvic viscera but it had the position and appearance of an ovarian tumour. The patient, much distressed by her condition, persuaded Bobbs to undertake removal of her mass.

At that time Bobbs used to rent a room on the third floor above a drug store for his operations and it was here that this historic operation was performed, assisted, and no doubt encouraged, by six of his physician colleagues and a medical student, on 15 June 1867.

Chloroform was used as the anaesthetic agent but the operation was carried out without antiseptic precautions – Joseph Lister’s paper on antiseptics was published in the *Lancet* in this same year. An incision was made between the umbilicus and the pubis. The omentum was adherent to the abdominal wall and also to the mass. The overlying adherent omentum was torn through and the swelling explored – it was attached by a broad base to the lower aspect of the liver. The mass was opened, clear serous fluid released, together with ‘several solid bodies about the size of ordinary rifle bullets’. Several more calculi were hooked out with the finger.

Bobbs was obviously puzzled – the position of the mass suggested the gall

bladder, but the clear fluid content made him consider the diagnosis of a hydatid. The adhesions made him decide not to explore the situation further and the abdominal incision was closed with sutures and adhesive plaster. (The probable explanation, of course, was that he was dealing with a mucocele of the gall bladder, a pathology with which he was obviously quite unfamiliar.)

Apart from some superficial wound infection and the need for repeated catheterizations of the bladder, the patient made a good recovery. Ten months after the operation she was well, back at work as a seamstress and it was reported that there was ‘no appearance of the enlargement recurring is observable up to the present’. Careful examination of the concretions removed left no doubt that these were indeed biliary calculi and numbered some 40 or 50. They were spherical, had a smooth mahogany surface and their interiors were whitish yellow.

Few clinicians outside the USA, or indeed outside of Indiana, would have read the article by Bobbs so it is not surprising that his pioneer operation failed to cause a surgical stir at that time. It was not for another decade that further operations were reported of the removal of stones from the gall bladder – by James Marion Sims of New York (who introduced the term used today for this procedure – cholecystotomy), Theodor Kocher of Berne and Lawson Tait in Birmingham. It was only after many years that John Bobbs received the accolade of a surgical first.

It remained for Carl Langenbuch, at the Lazarus Hospital, Berlin, to perform the first excision of the gall bladder – cholecystectomy – in 1882. This only took place after careful practice in the post mortem room and after noting that both elephants and horses do not possess this organ and so one could surmise that man would survive in its absence. **BJHM**

Conflict of interest: none.