Patrick Christopher Steptoe (1913-1988) [1]

By: Danielson, Andrew

Patrick Christopher Steptoe was a British gynecologist responsible for major advances in gynecology and reproductive technology [5]. Throughout his career Steptoe promoted laparoscopy, a minimally invasive surgical technique that allows a view inside the abdominal cavity, successfully advancing its usefulness in gynecology. After partnering with embryologist Robert Edwards [6] in 1966, the pair performed the first in vitro [7] fertilization [8] in humans [9].

Steptoe was born on 9 June 1913 in Oxforshire, England. His father was a church organist and registrar of births, marriages, and deaths; his mother worked for the Mother’s Union and Infant Welfare clinics. As a young man, Steptoe took an interest in music. He played piano, accompanying silent films at a local cinema, and participated in recitals at a local church. At eighteen he was appointed organist and musical director of the Christchurch Musical Society in Oxford, delaying his university entry until he turned twenty.

Steptoe graduated from St. George’s Medical School, London, in 1939 and in the same year was admitted to the Royal College of Surgeons. His career was put on hold by World War II, during which time he served in the British Royal Naval Reserve, eventually obtaining the rank of lieutenant-commander. Captured by Italians in 1941 when his ship was sunk off the coast of Crete, Steptoe spent time as a prisoner of war, some of it in solitary confinement for helping fellow prisoners escape. He was released after as part of a prisoner exchange in 1943 and continued to serve with the Royal Navy until 1946. After the war, Steptoe married Sheena Kennedy and started work at St. George’s Hospital in London where he received his training in obstetrics and gynecology and developed an interest in treating infertility [10].

In 1951, Steptoe took a position at Oldham General and District Hospital where his interests regarding fertility continued. He founded a family planning [11] clinic and worked to start a bank of semen [12] donors. While at Oldham, Steptoe refined a new surgical technique called laparoscopy. This technique proved beneficial, in part due to the small abdominal incisions required to insert the laparoscope (a long telescope utilizing a light source) as well as allowing the physician to actually see inside the patient, affording the opportunity for more accurate diagnosis. Steptoe consulted with many leading physicians regarding laparoscopy, including Raoul Palmer and Hans Fragenheim, and in 1967 wrote Laparoscopy in Gynaecology, the first book written in English on the topic. Steptoe’s laparoscopic skills put him on the fast track to his greatest medical discovery.

In 1966 Steptoe partnered with Robert Edwards [6], an embryologist from Cambridge; working together brought a new dynamic to their research. Steptoe’s expertise in laparoscopy gave him the ability to extract eggs, and Edwards had the laboratory experience to fertilize eggs in vitro [7]. Edwards later wrote that their collaboration was “a perfect match.” The two experimented with in vitro [7] fertilizations for a little over a decade, funded partially through abortions performed by Steptoe in his clinic. In 1976 Steptoe and Edwards met John and Leslie Brown, a couple unable to conceive naturally. Steptoe and Edwards were eventually able to successfully implant one of Leslie’s eggs into her uterus [13] after fertilizing it using sperm [14] from John. On 25 July 1978 a healthy baby girl, Louise Brown, was born in Oldham General and District Hospital, the first so-called “test tube baby.”

Criticism immediately surrounded Steptoe, Edwards, and their groundbreaking experiment. Religious groups, including the Roman Catholic Church [19], thought the two were playing God and their peers, including James Watson [16], questioned the merit of tampering with human procreation [17]. However, as Steptoe and Edwards’ infertility [10] experiments resulted in successful births, many other scientists began to undertake their own ventures into in vitro [7] fertilization [8].

In 1980 Steptoe became a founding member of the Bourn Hall Clinic [18], a leading center dealing with infertility [10]. Steptoe served as Medical Director until his death on 21 March 1988 in Canterbury, England.

Sources

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