Kurt Karl Stephan Semm, 1927 - 2003

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By OBGYN.net Staff [1]

This article is dedicated to our teacher in gynaecological laparoscopy and dear friend who died after a long illness on July 16th, 2003.

"It is an honor for me, as his student and friend, to briefly review his personal and professional life, dedicated to operative laparoscopy which he liked to call pelviscopy."

Sent to OBGYN.net by his friend and colleague, Professor Dr. med. Liselotte Mettler, Deputy Director of the Department of Obstetrics and Gynecology, University of Kiel

The term pelviscopy was selected by Kurt Semm in 1970 to differentiate between the gynecological laparoscopic procedure and that of the internists who performed laparoscopy with upper abdominal screening and liver biopsy. Semm hoped that the introduction of a new surgical term would persuade the medical insurance companies to pay a higher fee for the different pelviscopic procedures. This differentiation remained in the German Society of Gynecology and Obstetrics for over 30 years from 1965 until 1995. As gynecologists have now extended their surgical procedures out of the minor pelvis into the entire abdomen, with lymphadenectomies and other procedures, laparoscopy is a more appropriate term.

In the early 1960s, Kurt Semm, as a talented university assistant, had already dedicated his life to laparoscopy. He had recognized the potentials of this surgical technique to solve the limitations and side-effects of laparotomic surgery. In 1958 he wrote his treatise The problem of labor contractions under the influence of the “oxytocin-oxytocinase” metabolism under the auspices of the Nobel Prize winner, Professor Adolf Butenandt. Shortly after this, Kurt Semm left the endocrinological field and dedicated many scientific papers to the diagnosis and therapy of infertility.

Based on Kurt Semm’s dual training as a toolmaker and physician, his first attempts to overcome laparotomy focused on developing an electronic insufflator for CO2, a uterine manipulator and a tubal patency testing device. The first presentations of his inventions at German, Austrian and Swiss gynecological meetings were 40 years ago in the early 1960s.

The endoscopic publications of Palmer in the 60’s stimulated Semm to begin with laparoscopy in gynecology. At that time the pneumoperitoneum for liver biopsies and diagnosis was produced with air. Semm’s experiences with the construction of the universal pertubation apparatus for the pertubation of the Fallopian tubes with CO2 led to the invention of the CO2 pneu-automatic insufflator.

Resulting from his interest in helping couples overcome infertility problems, Kurt Semm founded the German Society of Fertility and Sterility in 1956.

In 1964 Semm received his professorial degree from the Department of Obstetrics and Gynecology, Munich University.

Throughout Kurt Semm’s fight to establish laparoscopic surgery in gynecology and general surgery (he always had positive interaction with urologists), the following three events demonstrated the
non-acceptance of laparoscopic surgery in the medical community between 1965 and 1985:

1) Kurt Semm was in the middle of a slide presentation on ovarian cyst enucleation by laparoscopy when suddenly the projector was unplugged with the explanation that such unethical surgery should not be presented.

2) After his appointment to the chair of the Department of Obstetrics and Gynecology, University of Kiel in 1970, Kurt Semm introduced laparoscopic surgery into the Kiel department.

At the request of co-workers, Kurt Semm had to undergo a brain scan because colleagues suspected that only a person with brain damage would perform laparoscopic surgery.

3) During a gynecological conference in Kiel in 1972, after Semm had performed an ovarian cyst enucleation by laparoscopy, a famous German gynecological professor gave me the following advice: “My young colleague, if you wish to advance in the German academic world, don’t pay any regard to Semm’s nonsense”.

Upon requesting surgeons at the Kiel university in the years 1975-1980 to perform laparoscopic cholecystectomy, Semm was greeted with laughter. His suggestion was rejected and we were told they had enough work to do repairing the intestinal damage which occurred during extensive laparoscopic adhesiolysis. The few cases of bowel lesions which did occur were all discovered in enough time to allow a safe surgical correction for the patient.

Kurt Semm performed the first appendectomy in our department in 1981. After he had presented a lecture on this topic at a surgical meeting in Germany, the President of the German Surgical Society wrote to the Board of Directors of the German Gynecological Society requesting the suspension from medical practice of this impertinent colleague.

Semm submitted a paper on laparoscopic appendectomy to the American Journal of Obstetrics and Gynecology which was rejected as unacceptable for publication on the grounds that the technique reported on was “unethical”.

The first publications on diagnostic laparoscopy by Raoul Palmer appeared in the early 1950s, followed by the publications of Frangenheim and Semm. Diagnostic laparoscopies were well accepted, but the surgical laparoscopy performed by Semm in Kiel after 1970 was considered “magic” in Germany and abroad.

Semm continued to present his techniques in Germany, Europe and in the United States of America. In the early 1970s, although sterilization by laparoscopy was accepted in the United States, laparoscopy was still considered only a diagnostic procedure.

At the Department of Obstetrics and Gynecology, University of Kiel, Germany gynecological laparoscopic surgical operations, such as ovarian cyst enucleation, myomectomy, ectopic pregnancy treatment, adhesiolysis and hysteroscopy, were routinely performed. Hans Lindemann and Kurt Semm practised CO2 hysteroscopy during the mid seventies (1973-76).

In 1981 Professor Jan Beermann from Detroit, Michigan, President of the American Society of Reproductive Medicine (at that time the American Fertility Society), visited Kurt Semm to see the “magic surgery”. On the day of his arrival Jan Beermann was lucky to witness a bilateral adnexectomy by Kurt Semm. When Kurt wanted to show him photos of the patient before the operation, Beermann said “No, I just want to see it in reality”. In the operating theatre Beerman observed a simple adnexectomy by laparoscopy, accepted that it was possible, left the operation theatre and disappeared from the hospital. He told us, “All I wanted to see was the reality of this surgery. Now, I am ready to go on my planned hunting trip.” His later comments in the United States helped to make laparoscopic surgery acceptable.

At a European meeting in Northern Italy, after a lecture of Kurt Semm on operative laparoscopy, Jordan Phillips, Director of the American Association of Gynecological Laparoscopists, accused Semm of taking the technique to the absurd and of not even being recognized in his own country. Jordan Phillips later became a good friend of Kurt Semm and withdrew his words of the early 80s. From
1986 onwards Jordan Phillips organized 76 laparoscopic surgical training courses for Kurt Semm and his team throughout the United States of America. The AAGL continues to run these courses today on a broad scale and a very knowledgeable American and international faculty runs them.

Kurt Semm never stopped travelling throughout Germany and the world to defend his laparoscopic surgical procedures. Through his knowledge, he developed many apparatuses and instruments. Once he had an idea, it was quickly materialized by his own medical instrument company Wisap in Munich, Germany, which still produces endoscopic instruments of high quality.

After a lecture by Kurt Semm in 1972, Melvin R. Cohen of Chicago, Illinois ordered 100 insufflators (CO\(_2\) pneu) from the Wisap company. Up until this time the company had only sold 10 insufflators. To fulfil these orders, Wisap had to hire new personnel as at that time they were understaffed to meet such demands. Today, many companies produce an electronically powered version of the CO\(_2\) pneu-electronic.

As Semm’s techniques spread throughout Germany during the 1970s and 80s, the saying went, “Let’s just wait until Semm takes out the uterus by laparoscopy”. At that time this was an unthinkable and unacceptable procedure.


Laparoscopic assistance to vaginal hysterectomy has been performed in our department since 1984 on a regular basis if the uterus is immobile, the adnexas adherent to the pelvic wall or if the patient has undergone previous abdominal surgery. As we at Kiel are a “vaginal” school, however, the saying went that only weak surgeons considered it necessary to add laparoscopic surgery to vaginal hysterectomy. The laparoscopic part of the hysterectomy always consisted of the dissection of the adnexas and the round ligament with dissection of the uterus only to above the sacrouterine and cardinal ligaments. The hysterectomy was then performed vaginally similar to the present type I laparoscopic assisted hysterectomy.

From the beginning Kurt Semm used photographic methods and film to document his laparoscopic activities. As the operation field could not be visualized by a third person until 1985, the films had the utmost significance. Kurt Semm produced over 30 endoscopic films and more than 20,000 colored slides to inform interested colleagues of his technique. In 1985 he constructed the pelvi-trainer = laparo-trainer, a practical surgical model whereby colleagues could practise laparoscopic techniques firstly by viewing through the plexiglass transparent trainer, then by covering the trainer and lastly by working via the video screen. American medical societies were astonished to observe Semm and his co-workers transporting these trainers over the Atlantic in their hand luggage to demonstrate laparoscopic surgery. These trainers have now been substituted by newer modifications and by virtual reality simulators which allow optimal surgical training before live surgery is performed.

Kurt Semm invented many instruments and apparatuses for laparoscopic surgery not only for the gynaecologist, but also for the general surgeon and those in other disciplines. Semm published over 1,000 papers. His activities in national and international professional organizations, many of which were founded by him, are numerous. He was president of the International Federation of Fertility Societies, an honorary member of all endoscopic societies and for 25 years a brilliant teacher and head of one of the largest university clinics in Germany.

Kurt Semm loved sailing and flying. He often invited visitors on board his yacht or took them flying in his private plane. He was only once frightened on these trips when Professor Soitchi Sakomo from Tokyo, Japan, told him that he used to be a Kamikaze flyer.
Semm was married for thirty years to Roswitha von Morozowicz who died of breast cancer in 1986. In the summer of 1986 Kurt Semm became a member of the Leopoldina, the German Academy of Scientists in Halle on the Saale which dates back to the year 1652 and is the oldest society of scientists in the world.

In 1994 Kurt Semm married Isolde Semm, an Irish gynecologist. They later moved to Tucson, Arizona, with their two children. Isolde Semm is president of the endoscopic instrument company Wisap with activities in Germany and many overseas countries.

It has been an honor to have witnessed the milestones which Kurt Karl Stephan Semm achieved in the field of laparoscopic surgery. Students, friends and peers will never forget him. There are few people in the world who have been able to achieve what Kurt Semm achieved in 75 years. He was a man of great reputation whose methods were well understood and developed further. Kurt Semm's books were the bible of operative laparoscopy and endoscopic surgery for over thirty years. His first atlas on pelviscopy and hysteroscopy was published in 1976, a slide atlas on pelviscopy, hysteroscopy and fetoscopy in 1979 and his books on gynecological endoscopic surgery in German, English and many other languages in 1984, 1987 and 2002.

Late, but with great pleasure, Kurt Semm received the “Pioneer in Endoscopy” Award from the Board of Governors of the SAGES (Society of American Gastrointestinal Endoscopic Surgeons) in New York in March 2002. The Society of Laparoendoscopic Surgeons gave him a standing ovation at their last annual meeting in New Orleans in September 2002. In April 2003 he received the honorary membership of the International Society of Gynaecological Endoscopy in Cancun, Mexico.

**References:**
Professor Dr. med. Liselotte Mettler  
Deputy Director of the Department of Obstetrics and Gynecology,  
University of Kiel  
Michaelisstr. 16  
14105 Kiel  
Germany  
Tel. 0049-431-5972086  
FAX: 0049-431-5972116  
Email: lmettler@email.uni-kiel.de

Kurt Semm, Founder of Laparoscopic Surgery, Dies at 76  
By Carla Baranauckas


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