

Ernst Wertheim (1864–1920) and the operation of Wertheim

M. Thiery

© Springer-Verlag 2008

The name of this Austrian gynaecologist remains eponymously associated with the radical abdominal hysterectomy for uterine cancer [1].

Ernst Wertheim was born of Jewish parents on 21 February 1864 in the city of Graz, Austria, (Fig. 1) [2–4]. He studied medicine in his native city and was admitted to the medical profession in 1888. He started his medical specialisation in obstetrics/gynaecology in Prague, Czech Republic, under the tutelage of Professor Friedrich Schauta (1849–1919) and accompanied his tutor/director to Vienna, where the “Father” of the radical *vaginal* hysterectomy was in 1891 appointed professor and director of the *Frauenklinik* (Fig. 2) [5].

This close relationship between the two surgeon specialists came to an end when, in 1899, the 33-year-old Wertheim was appointed director of the Bettina-Pavillon. This gynaecologic–oncologic department of one of Vienna’s hospitals had been founded by the banker-philanthropist Baron Albert Rothschild in memory of his wife Frau Bettina who died of breast cancer. It was a hyper-modern hospital equipped with the latest technology where Wertheim was able to perfect the “Wertheim operation”.

In 1910, Wertheim was appointed professor of gynaecology at the Vienna University and director of the Vienna II. *Frauenklinik*, the thus far neglected institute which he subsequently will turn into the European Mecca where colleagues from across the world, but especially from Great Britain and the United States, will congregate to perfect their knowledge and surgical techniques. Unfortunately, he was only allowed to work there for a brief span of 10 years, because 6 days before his 56th birthday, on 15 February 1920, he succumbed, like countless millions of other victims, to a rampant influenza pandemic. Wertheim was a small, energetic, extremely disciplined, demanding personality of difficult disposition, who conducted his surgery nervously and without surgical gloves for fear of losing his “*Fingerspitzengefühl*”, the sensitivity in his fingertips (Fig. 3) [6]. A multi-faceted scientist, who also made a significant contribution to gynaecological infectious diseases and invented new surgical instruments such as the long, curved surgical forceps—which continues to bear his name—for the clamping off of the parametrial tissue and of the vagina [7, 8]. The fact that he performed the radical hysterectomy exclusively by the abdominal route must not obscure the reality that Wertheim, like Schauta, was a virtuoso surgeon of the vagina. As demonstrated in his textbook “*Die Technik der vaginalen Bauchhöhlen Operationen*”, (Leipzig, 1906), which refers to his technique of conducting vaginal operations via the abdominal cavity, he improved on the practice of vaginal surgery and invented and introduced novel surgical techniques.

But it is with the “operation of Wertheim” that he has secured his place in medical history. After the pathologists/anatomists had demonstrated during the years 1880 that the collum carcinoma would spread through the surrounding tissues and involve the local lymph nodes much more rapidly than had previously been assumed, it was evident

This article was originally published in *Tijdschrift voor Geneeskunde* (2006,26:1554–6). The English version is printed by permission of Prof. Dr. J. Lauweryns, Editor-in-Chief. Life Leuven is acknowledged for the translation.

M. Thiery
Foundation Jan Palfijn and Museum for History of Medicine,
“Het Pand”,
Gent, Belgium

M. Thiery (✉)
Aan de Bocht 6,
9000 Gent, Belgium

Fig. 1 Ernst Wertheim

that the practised hysterectomy could not be a curative operation and that a more radical approach was called for. An American gynaecologist from Baltimore, USA, would take the lead and introduce in the year 1895 a “more radical method of performing hysterectomy surgery for uterine cancer” [9]. However, it appeared from his report on the operations of 12 women patients that he had not in all of these cases removed the parametria together with the lymph nodes. For that reason, the honour of having introduced the expanded (“*erweiterte*”) abdominal operation belongs to Wertheim. He did, indeed, systematically remove the uterus together with the uterine appendages, the upper third of the vagina, the parametria and the pelvic lymph nodes [10].

All operated specimens were meticulously examined, both macroscopically and microscopically. The fact that, in this manner and at an early stage, he was able to observe in many of them the presence of cancerous tissue outside of the uterus convinced him that his surgical approach and philosophy was correct, and likewise that complete lymphadenectomy could only be achieved via the abdominal route. The 100% follow-up of his enormous patient list (it is

Fig. 2 Friedrich Schauta**Fig. 3** Wertheim at the operating table (*left*). (Schönbauer L. *Das medezinische Wien*. Wien: Urban and Scharzenberg, 1947)

estimated that Wertheim performed over 1,300 Wertheim operations) and the statistical analysis of the results, whereby he drew a clear distinction between “primary surgical mortality” and “consistent recovery”, proved the effectiveness of the “Wertheim operation”, the operation that served as a persistent model for all later modifications to the methodology.

References

1. Wertheim E (1900) Zur Frage der Radicaloperation beim Uteruskrebs. *Arch Gynäk* 61:627–668
2. Speert H (1956) Obstetrical–gynecological eponyms: Ernst Wertheim and his operation for uterine cancer. *Cancer* 9:859–865
3. Fischer I (1962) *Biographisches Lexikon der hervorragenden Aerzte*. Urban and Schwarzenberg, München
4. Baskett TF (1996) *On the shoulders of giants*. RCOG, London
5. Schauta F (1908) *Die erweiterte vaginale Totalexstirpation des Uterus bei Kollum Karzinom*. Verlag Sfar, Wien
6. Kerr MJ, Johnstone RW, Phillips MH (eds.) (1954) *Historical review of British obstetrics and gynaecology 1800–1950*. E. and S. Livingstone, Edinburgh
7. Wertheim E (1896) Ueber Uterus-Gonorrhöe. *Verh Dtsch Ges Gynäk* 6:199–223
8. Wertheim E (1895) Ueber Blasen-Gonorrhöe. *Z Geburtsh Gynäk* 35:1–10
9. Clark JG (1895) A more radical method of performing hysterectomy for cancer of the uterus. *Bull Johns Hopkins Hosp* 6:120
10. Wertheim E (1911) *Die erweiterte abdominale Operation bei Carcinoma colli Uteri (auf Grund von 500 Fällen)*. Urban und Schwarzenberg, Berlin-Vienna