

HISTORY OF ONCOLOGY

André Levret (1703-1780): the eminent obstetrician of the 18th century and his innovative approach to the treatment of uterine polyps

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Summary

André Levret (1703-1780) was a distinguished obstetrician and surgeon who gained reputation in obstetrics by improving several medical instruments for assisting delivery and introducing a manipulation for breech delivery used in practice till nowadays, known also as “Mauriceau-Levret manoeuvre”. Moreover, he proposed a new surgical approach for the

treatment of uterine and cervical polyps; the use of ligatures to snare the polyp. He also devised an instrument to facilitate the placement of ligature and the removal of the polyp. His method became famous as the time of operation and the postoperative complications were diminished.

Key words: history of gynecologic oncology, Levret, polypectomy

Introduction

Known since antiquity, uterine tumors were recognized by ancient physicians as a specific disease entity. Hippocrates (460-377 B.C.), Soranus of Ephesus (98-138 AD), Galen (ca. 130-201 AD) and Aretaeus of Cappadocia (ca. 2nd-3rd century AD) provided classification of uterine tumors, accurate description and treatment and they developed surgical instruments such as vaginal endoscopes (speculum-dioptras), hedrodias-toleus (rectal spectum) and “kauterion” (cautery) [1]. Their notions on uterine tumors evolved further in the following centuries by the Byzantine physicians, Oribasius (ca. 325-403 AD), Aetius of Amida (ca. 502-575 AD), and Paul of Aegina (ca. 625-690 AD). Their work through translations and copying in monastic libraries survived middle ages and passed on European universities and medical practice [2].

Till the last decades of 16th century, the so called “women diseases” were treated by female midwives. However in the early 17th century, the practice of obstetrics passed to medical men called “accoucheurs” [3]. During these centuries, medicine was characterized by the conflict between old and new ideas and the abolition of medievalism.

In 18th century, known also as the century of medical enlightenment, the progress of anatomy, surgery and the invention of microscope contributed to the evolution of pathologic anatomy and experimental pathology [4]. As a result, new disease entities were discovered and new therapeutic approaches were proposed. Gynaecology followed that progress and a famous obstetrician of that time, André Levret (1703-1780) popularized a new approach in the treatment of uterine polyps, the use of ligatures.

Levret's life and work in obstetrics and uterine polyps

André Levret was born in Paris in 1703 where he later finished his studies in medicine [5] (Figure 1). At the beginning of his medical career, he had the chance to have a rich patron, the financier Samuel Bernard (1651-1739), Count of Coubert, who according to the diplomat Duc de Saint-Simon (1675-1755) was the most famous and richest banker in Europe, lending an important fund to the Kings of France Louis XIV and Louis XV. On his death, in 1739, Bernard left Levret one hundred thousand pounds [6]. Without a financial need, Levret became committed to medicine and obstetrics, gaining a high reputation for his skills, and favored in royal court circles. Levret also delivered Dauphine Maria Josepha of Saxony (1731-1767), mother of the King Louis XVI. A lady-in-waiting said to him on the occasion: «You must be pleased, Monsieur Levret, to be called to deliver the Dauphiness. That will make your reputation» and Levret replied: «Madame, if my reputation was not already made, I should not be here» [7].

Surgery claimed also Levret's attention and in February 1742 he was admitted as member of

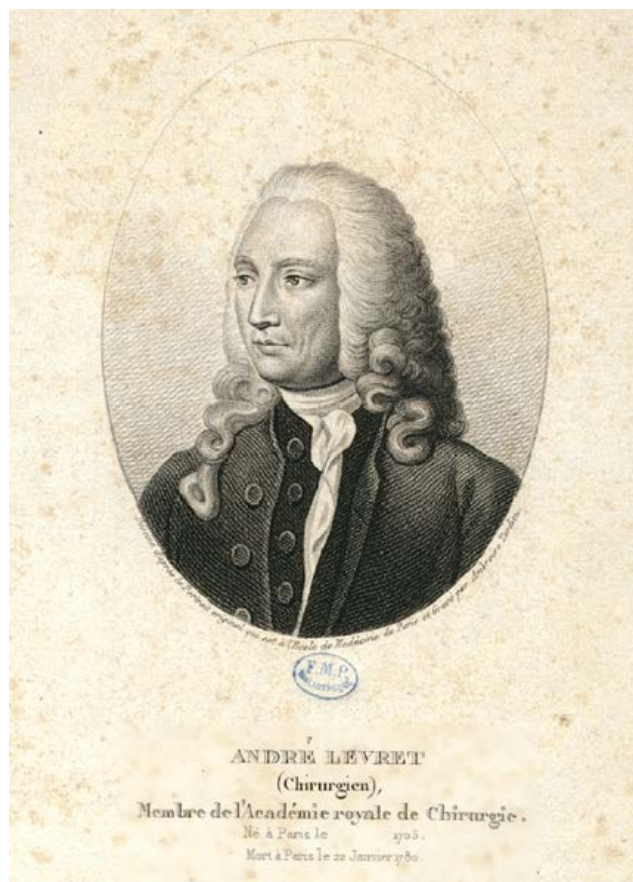


Figure 1. The illustrious surgeon and obstetrician André Levret.

the Royal Academy of Surgery of Paris. Students all over Europe were visiting Paris to learn obstetrics and surgical gynaecology from Levret [8]. In 1747, he published his first work entitled: “Observations sur les causes et les accidents de accouchements laborieux” (Observations on the causes and accidents of laborious deliveries) [9], followed by “Observations sur la cure radicale de plusieurs polypes de la matrice, de la gorge, et du nez” (Observations on the radical treatment of several polyps of the uterus and the cervix) [10], “Essai sur l’abus des règles” (Essay on heavy menstrual bleeding) in 1766 [11] and his masterpiece in obstetrics published in 1753, 1761 and 1766 “L’art des accouchements” (The art of deliveries) translated also in several languages [12]. Furthermore, Levret invented several instruments for assisting delivery, including a three bladed tire-tête for extracting the head, a crotchet with a guarded hook and his forceps, a modification of Palfyn’s main de fer and of Gregoire’s forceps, following an improvement by the introduction of pelvic curve [13]. Levret’s forceps were renowned across Europe for the following two centuries while the classical manipulation for breech delivery “Mauriceau-Levret manoeuvre”, named after him and the obstetrician François Mauriceau (1637-1709), remains still in practice.

Moreover, Levret dealt successfully with the treatment of uterine and cervical polyps. During the first half of the 17th century polyps were usually excised, crushed, or cauterized. In 1749, Levret wrote a five hundred page manuscript on the treatment of polyps [10]. In the frontispiece, he was mentioned as “Master of Surgery” (Maître en Chirurgie) while in the preface, he stated that he had the opportunity to treat a large number of patients suffering from various types of tumors afflicting the uterus and vagina [10]. Levret explains in detail the anatomical and surgical terms used in the text and described the types of polyps and their location. He mentioned that these tumors are called “polyps” due to their resemblance to octopus [10]. He also differentiated polyps from other gynaecological affections such as uterine prolapse and vaginal hernia and recorded his experiences in more than thirty cases [10]. Therapeutically, he proposed for the first time the use of ligatures to snare the polyp. Five year later, in 1754, he published in the Memoirs of the Royal Academy of Surgery an article on polyps of the uterus and vagina mentioning again his innovative therapeutic approach [14]. In order to facilitate the placement of ligature and the removal

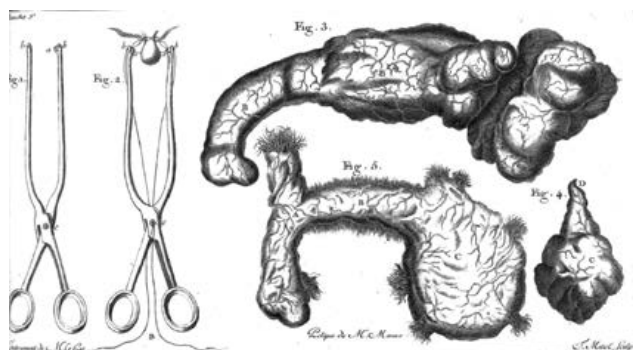


Figure 2. Levret's device for polypectomy

of the polyp, Levret modified the instrument of the professor of surgery Georges de Lafaye (1699-1781), as well as, that of the surgeon Claude Nicolas Le Cat (1700-1768) who performed the first removal of bladder polyp through a dilated urethra [13] (Figure 2).

The method of Levret gained popularity as once secured, the polyp could be removed easily without having to exert much pressure on the device. In his turn, the distinguished surgeon Pierre Joseph Desault (1738-1795), founder of the first surgical clinic in Hôtel Dieu hospital in Paris, praised Levret for his contribution in polypectomy mentioning in his manuscript *Oeuvres chirurgicales* (Surgical Works) the importance of ligation: "The polypi of the womb are, doubtless, of all others those in which the ligature is most visibly indicated. Nature seems here to point out to art the course which she ought to pursue in order to supply the insufficiency of her efforts. Sometimes, in fact the orifice of the womb, strangling the stem of the polypus, to which it had given passage, intercepts the circulation in it, occasions

its mortification, and soon after its separation and protrusion. Thus the ligation of this sort of polypi has principally engaged the attention of practitioners" [15].

Levret died on January 22, 1780 at 73 years old, leaving an important legacy in obstetrics and gynaecology.

Conclusion

The most distinguished "accoucheur" of the mid eighteenth century, general surgeon of marked ability, André Levret revolutionized the therapeutic approach of uterine and cervical polyps. However, in his work he does not mention the probability of cancerous transformation of the polyp. About the close of the 18th century, with the advent of pathology, medical authors recognized the low risk for cancer appearance and proposed, in some cases, the removal of the uterus or cervix. In 1793, the German gynaecologist Friedrich Benjamin Osiander (1759-1822), a follower of Levret, suggested the extirpation of the uterus in case of several polyps and in 1801 he performed the first amputation of the cervix in a patient who was suffering from a cervical polyp who underwent a neoplastic change [16].

However, Levret's contribution remained of value. Several devices, modifications of Levret's "novel instrument" were created. Gynaecologists and surgeons could successfully secure and easily remove the polyps, diminishing thus the time of operation, the bleeding and the incomplete removal. It remains of interest that the instrument he devised for that type of surgery was used years later, after modifications, to remove polyps from the nose and throat.

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