1 Urogynecology and Reconstructive Pelvic Surgery: Past, Present and Future

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Introduction

Urogynecology, gynecological urology, or female urology is probably as old as medicine itself. The ancient Egyptians, who laid the foundation of medical knowledge, appreciated the close relationship between diseases of the female genital and urinary systems.

For the purpose of major periods of development we will divide our discussion in this chapter into three sections. We will consider the past under: (1) prior to the nineteenth century; (2) progress in the nineteenth century. The present will review the tremendous progress made during the twentieth century, and for the future we will look to the 21st century and a new millennium with suggestions for future initiatives and directions.

Past

Prior to the Nineteenth Century

The Kahun papyrus, written about 2000 BC, was devoted to diseases of women and includes diseases of the female genital organs as well as problems of the urinary bladder [1]. The Ebers papyrus (year 1550 BC) included disorders of micturition as well as gynecological and obstetric problems [2].

In the eighteenth century the Scottish Enlightenment especially had a profound effect on educational institutions in colonial America. Many of the leading colonial universities were led by Scots educated at the University of Edinburgh [3].

A significant number of the founders of medical schools on the Atlantic coast went abroad to receive an MD from the University of Edinburgh and to work in the London anatomical schools, of which the most famous was Great Windmill Street founded by William Hunter (1718–1783) with his brother John Hunter (1728–1793).

Progress in the Nineteenth Century

Garrison’s History of Medicine states “Operative gynecology, which had no special existence before the beginning of the 19th century, was largely the creation of certain surgeons from the southern states” [4]. Ephraim McDowell was the first to successfully perform ovariotomy and became known as the founder of abdominal surgery. James Marion Sims (Figure 1.1) became known as the father of modern gynecologic surgery with his pioneering work in repairing vesicovaginal fistula. After 29 previous attempts, he achieved his first success with the slave woman Anarca in 1849, using fine silver wire sutures.

The nineteenth century was characterized by attempts to devise some type of instrument by which the interior of the bladder might be observed. In 1806, Bozzini [5] of Frankfurt described a hollow specula for use in the throat, vagina, and female bladder using a mirror for light reflection. The first actual use of any type of cystoscope was described by Segalas of Paris in 1828 [6].

In 1875, G. Simon of Rostock was the first to catheterize the ureters. Rutenberg, 1876, and Grunfield, 1881, both of Vienna, used air distension of the bladder and reflected light from a head mirror. In 1893, Dr Howard A. Kelly (Figure 1.2) announced a method for “The Direct Examination of the Female Bladder with Elevated Pelvis” which became known as the “Kelly open air” method of cystoscopy.

In 1867, Julius Bruck of Breslau devised an instrument with a platinum loop heated by electricity. In
1879, Max Nitze of Berlin added a lens system designed by Leiter of Vienna to the platinum loop. In 1886, Dittel of Vienna adopted the Edison electric lamp to this type of instrument. In 1887 Nitze produced an indirect instrument with sheath and telescope [7].


Howard Kelly’s active interest in the urologic phase of gynecology resulted in the inclusion of female urology as an integral part of the Gynecological Department at the Johns Hopkins Hospital. James Brown was the first Chief of Urology at Hopkins. To Dr. Guy L. Hunner fell the lot of healing this subdivision of the Gynecologic Department and his contributions were numerous [7].

Present

Twentieth Century [10]

Reviewing the past century of progress in a new subspecialty entitled Urogynecology and Reconstructive Pelvic Surgery (URPS) is a daunting task. The quotation that best summarizes this period is the opening sentence from Charles Dickens, *A Tale of Two Cities*, which says: “It was the best of times, it was the worst of times”. It was the best of times because undoubtedly we have made tremendous progress in this burgeoning new field; however, it was also the worst of times because of the politics of the female pelvis, where we have had urologists, gynecologists and now, more recently urogynecologists, surgeons and colorectal surgeons, arbitrarily dividing the female pelvis for political, financial and turf reasons, the end result of which is that we have done women a tremendous disservice by fractioning health care for women with pelvic floor disorders.

The politics of the pelvis can be well illustrated by the drawing (Figure 1.3) from the excellent article by Louis Wall and John Delancey on the “politics of the pelvis”, showing the territorial imperatives that work on the pelvic floor. This issue is further shown by the cartoon, which shows two surgeons, one saying, “Gee that was close, an inch either way and I would have been out of my specialty.”

Voltaire (1694–1788), the French philosopher of the Age of Enlightenment said, “these truths are not for all men, nor for all times”. Alphonse Karr (1808–1890), the French critic and novelist, in 1849