Chapter 28

Endometriosis is a Surgical Disease

Philippe R. Koninckx

28.1 Introduction

Our understanding of endometriosis has changed dramatically over the past decade. Introduced clinically at the beginning of this century, as ovarian "chocolate cysts"[1] and as adenomyosis externa,[2–4] it was defined as endometrial glands and stroma outside the uterus. According to this definition, black puckered lesions in the pelvis were soon recognised as endometriosis, making it a frequently observed disease. When, in the 1980s, non-pigmented endometriotic lesions were also described,[5–8] the prevalence of the disease increased from 5–20% to over 60–80% of women with infertility and/or pelvic pain.[9–18] Simultaneously with the increasing awareness of the prevalence of endometriosis, our concepts of aetiology, pathophysiology, natural history and therapy have evolved.

Endometriosis has been considered for decades as the result of the implantation of retrograde menstruated endometrial cells,[19] or metaplasia[20,21] induced by this menstrual debris or lymphatic spread.[22,23] It has been shown that retrograde menstruation occurs in almost all women,[24,25] and that this fluid contains viable cells[26] that can implant on the peritoneum.[27] Progression to cystic ovarian endometriosis and/or deep infiltrating endometriosis was assumed as the natural history of the disease.[28] In recent years this concept of implantation and progression has been challenged by a new concept considering superficial endometriosis to be a physiological condition occurring intermittently in all women, retaining only deep and cystic ovarian endometriosis as a true disease.[29,30]

Treatment of endometriosis consisted of surgical destruction or medical inactivation. As recurrences were considered to be frequent, surgery was often radical. In the last decade, especially since the introduction of endoscopic surgery, concepts such as debulking of deep endometriosis and focal therapy of cystic endometriosis have questioned the concept that surgery should be radical, that endometriotic disease is always progressive, and that recurrence rates are high. Hormone replacement therapy given to women with endometriosis has moreover questioned our concepts of medical therapy and peritoneal fluid.[31]

In order to evaluate critically surgery for endometriosis, we will first discuss the differences in surgical techniques and subsequently describe indications and results of treatment.

28.2 History of Surgical Techniques

To interpret the literature describing the results of surgery for endometriosis, a clear understanding of the evolution and limitations of the various techniques is necessary. Up to the end of the 1970s, minimal and mild endometriosis was destroyed endoscopically by heat application (endothermia) and by unipolar or bipolar coagulation. Treatment of more severe endometriotic disease was mostly radical by hysterectomy, often leaving some rectovaginal endometriosis, whereas in younger women adnexectomies, rarely cystectomies, and anterior resections of the rectum were performed. The literature of this period focuses on infertility and on mild endometriosis and is biased by the fact that deep endometriosis – unless very severe and large – was not recognised. All series of this period are thus "contaminated" by some 5–20% of undiagnosed and thus untreated deep endometriosis.

In the late 1970s and early 1980s, microsurgery was promoted, emphasising careful destruction of superficial endometriosis by bipolar coagulation or resection and removal of cystic ovarian endometriosis followed by reconstruction of the ovary. The underdiagnosing of deep endometriosis continued to be a problem.

D. Timmerman et al., *Ultrasound and Endoscopic Surgery in Obstetrics and Gynaecology*