TAMPON USE IN WOMEN WITH ENDOMETRIOSIS

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ABSTRACT: This study examines the potential role of vaginal tampons in women with endometriosis. In light of the fact that some medical practitioners view an appliance worn internally as a form of medical device, and in light of the recent knowledge about tampons gained during the crisis surrounding Toxic Shock Syndrome, little published information about women's menstrual patterns and practices was found.

The data used here were provided by 470 members of the Endometriosis Association. These respondents' medical, surgical, and fertility case histories are stored in the Association's Data Registry housed at the Medical College of Wisconsin. Cases in this study are white; the average age is $31 \pm 5.2$ years and 82 percent report use of tampons routinely.

In contrast, general rates of tampon use, derived historically from several published studies using control groups matched to cases of Toxic Shock Syndrome were used for comparison. Results showed that rates of tampon use for women with endometriosis were similar to rates reported for the general population, 75 to 83 percent. We did find that within this group of mature white women, initiation of tampon use varied by age. Supporting Irwin and Millstein's study of tampon use in adolescent girls, an analysis of variance showed these women initiated tampon use at progressively earlier ages ($p < 0.001$).

INTRODUCTION

Endometriosis, a disease characterized by the location of endometrial lining outside the uterus, is often serious in its complications. The etiology is little understood and theories abound. Physiologically, endometrial growths or implants frequently appear on the ovaries, fallopian tubes, and in the cul-de-sac. However, implants have been documented in the relatively extreme locations of the stomach, lungs, and kidneys. Symptoms include dysmenorrhea, menorrhagia, menometrorrhagia, dyspareunia and infertility. Disability occurs during the prime reproductive years of life.

Medical treatment is varied, and therapeutic modalities are fre-
quently combined for maximum effectiveness. Surgery, hormonal therapies, and/or the advocation of pregnancy appear to be the treatments of choice by physicians. Seriousness of surgical procedures range from laparoscopy, with the simple removal and cauterization of growths, to complete hysterectomy, with removal of all ovarian tissue. Hormonal therapies are directed toward achieving a state of amenorrhea, thought to halt proliferation of implants and to facilitate healing. To achieve this state, both male and female hormones have been used, as well as pregnancy itself.

While several theories have been proposed, the etiology of endometriosis remains unknown. Over fifty years ago, Sampson introduced the subject, endometriosis, extensively into the medical literature and, later, hypothesized that endometriosis was caused by the backward flow or regurgitation of endometrial cells through the fallopian tubes. This hypothesis remains popular today.

The theory of retrograde flow falls under the general category of transportation theories. Most such theories suggest that endometrial tissue is transported by various mechanisms to ectopic locations where implantation occurs. Another group of theories is based on the belief in the mutation of ovarian or mesothelial tissues. For adherents of the former school, the question of whether vaginal tampons can promote or facilitate retrograde menstrual flow has arisen. A fairly extensive examination of current literature provides no clue to the role tampons play, if any.

**HISTORICAL OVERVIEW**

The history of tampons is a fascinating one. A cursory view of the literature yields little information on behavior or patterns of use until the medical community was faced in the late 1970s with Toxic Shock Syndrome (TSS).

Osterholm and his colleagues have briefly traced the history of commercial products for menstrual hygiene, products referred to as cata-
menial or monthly products. The first disposable sanitary napkins or perineal pads, according to Osterholm, were marketed about the time of World War I. In 1933, a Colorado physician devised the first vaginal tampon constructed from surgical cotton and accompanied by a cardboard applicator. Tampax Incorporated purchased the patent in 1936 and initiated national production. Commercially successful, Tampax virtually controlled the market for the next three decades. Reports in the medical literature between 1936 and 1966, Osterholm noted, contained numerous articles debating moral and clinical issues surrounding tampon