Contraceptive choice
Truth or consequences

A number of excellent contraceptive choices exist for women, yet staggering rates of unwanted pregnancies occur annually. The author provides an overview of the variety of contraceptive choices women have and the importance of identifying the best option for each patient to ensure compliance.

BY **MARY JANE MINKIN, MD**

DR. MINKIN is clinical professor of obstetrics, gynecology, and reproductive sciences, Yale School of Medicine, New Haven, Connecticut. She has no conflicts of interest to disclose with respect to the content of this article. Dr. Minkin reports that she serves as an advisor/consultant to Bayer, Noven, Novo Nordisk, and Enzymatic Therapies, for which she receives compensation.

Most gynecologists are aware of the 1965 Supreme Court decision in *Griswold v Connecticut,* which invalidated the state law that prohibited the use of contraceptives.[1] Few are aware that the full case name was *Estelle Griswold and C. Lee Buxton v Connecticut.*

Buxton was chair of the Department of Obstetrics and Gynecology at Yale Medical School. He was arrested at Planned Parenthood's clinic in New Haven and convicted of violating state statutes.

Buxton's successor as medical director of the Planned Parenthood League of Connecticut, Virginia Stuermer, MD, is officially retired but still regularly participates in departmental grand rounds at Yale.

Contraception choice is clearly a relatively young field, and its protection should be of paramount importance to academicians, clinicians, and patients.

Gynecologists should understand that there are more than 3 million unwanted or mistimed pregnancies annually in the United States. Half of these are from nonuse of any contraception, and half are from either failure to effectively use contraception or failure to use effective contraception.[2]

Beside the human tragedy, these pregnancies exact a significant financial toll. The cost of 1 Medicaid-covered birth in the United States in 2008 was $12,613 for prenatal care, delivery, postpartum care, and infant care, compared with the $257 cost for 1 year of contraceptive care.[3]

Take-home messages

- We have many excellent methods of contraception available, but almost all have been tainted with controversy.
- The mantra of personalization of care needs to be considered in the choices of contraception for younger women.

Consider the options

We have many excellent methods of contraception available, but almost all of them have been tainted with controversy in medical, legal, or media circles at 1 time or another, which has affected their availability and deterred their choice as reliable methods. As philosopher George Santayana wrote more than 100 years ago, those who cannot remember the past are condemned to repeat it. Given recent warnings, it is time to briefly review several recent, yet significant, controversial episodes involving some very reliable methods.

Recent publications confirm that the effectiveness of long-acting reversible contraception such as intrauterine devices (IUDs) and implants is superior to that of contraceptive pills, patches, or rings.[2] Despite the widespread availability of IUDs in the 1970s, however, by the mid-1980s no long-term-use IUD was available on the US market.

Litigation against IUDs, particularly the Dalkon Shield, discouraged manufacturers from promoting this highly effective method.[4] The reintroduction of long-acting IUDs in 1988 finally allowed US women the choice of a method used worldwide, where reliability is appreciated.

During the next decade, IUD prevalence as a contraceptive method rose to just 1% of birth control users.[5] And even now the consequences of the sustained bad press against IUDs partially accounts for the small 5.5% of US women currently using that form of contraception.[2]

For many women, oral contraceptives (OCs) provide very effective contraception along with other benefits such as control of menorrhagia, dysmenorrhea, acne, hirsutism, and premenstrual dysphoric disorder (PMDD).[6] However, not all birth control pills are equally tolerated. Adverse effects of the different progestins in menopausal therapy are well known,[7] and it is quite common for women to switch from 1 combination OC to another to minimize adverse effects or to try to achieve noncontraceptive benefits.

In the early 1990s, a new third-generation progestin, desogestrel, was introduced. Its use increased dramatically, and by 1993 more than half of UK women were using desogestrel and gestodene pills. But several studies published soon after its introduction showed an increased risk of thromboembolic events, prompting the UK Committee on Safety of Medicines (CSM) to send a "Dear Doctor" letter in October 1995 alerting physicians to the data that "the chance of a thrombosis occurring in a vein increases around two-fold for some types of pills compared with others."[8]

Although even some of the epidemiologists collecting these data noted that their "results for venous thromboembolism [VTE] are equivocal," many physicians and women panicked. Use of gestodene and desogestrel pills fell from 53% in 1995 to 14% of pill users by the end of 1998.[9] Ironically, there was no significant decrease in incidence of VTE during this time frame, leading British epidemiologists to conclude that the third-generation OCs were not associated with any significant increased risk of VTE. Indeed, many epidemiologists concluded that confounding variables and biases, such as the healthy user bias, contributed to the findings of the increased risk with desogestrel.

Cost of 1 Medicaid-covered birth
IN THE UNITED STATES IN 2008

$12,613

for prenatal care, delivery, postpartum care, and infant care

COMPARED WITH THE

$257

cost for 1 year of contraceptive care.

Battling the media

Unfortunately, the consequences of the 1995 "pill scare" were significant. British data suggested that women younger than 16 years were particularly affected by the bad press, and their use of OCs fell from 40% to 27% in the year afterward.[8] Surveys showed that two-thirds of women who switched methods to a less-effective barrier method did so because of concern about health risks. Pregnancy

Contraception choice is clearly a relatively young field, and its protection should be of paramount importance to academicians, clinicians, and patients.

and abortion rates in the United Kingdom rose significantly. British epidemiologists commented that pregnancy "is associated with twice the risk of thrombosis that is estimated with use of the third-generation progestogen contraceptive pills that prompted the CSM announcement."

In the last 3 years, several studies have raised the question of an increased risk of VTE with the newest "fourth-generation" progestin, drospirenone, and the third-generation norelgestromin patch.[10] These studies are subject to similar limitations raised in the desogestrel studies published almost 20 years ago.[11] The US Food and Drug Administration (FDA) has added warnings to the drospirenone pills' labeling that there may be an increased risk of VTE associated with their use. As discussed in the comprehensive review by 3 of the members of the FDA panel, the norelgestromin and drospirenone warnings are based on "weak data . . . the current evidence is more than sufficient to reassure providers and women about the most important clinically relevant facts about these methods: that they are effective, safe, and beneficial to health."[10]

POWER POINT

There are more than 3 million unwanted or mistimed pregnancies annually in the United States.

At this time, we do not have the follow-up data on unintended pregnancy rates that might result from attendant anxiety from women and clinicians. We do know that many women prefer the convenience of a once-a-week patch and that many women prefer the diuretic properties of drospirenone and its beneficial effects on acne, PMDD, and limiting weight gain.[12]

Summary

We all want women to have choices, including choices in contraception. The mantra of personalization of care, widely promoted in the care of menopausal women, needs to be considered in the choices of contraception for younger women. Although it remains imperative to always consider and evaluate potential negative effects, it remains equally paramount to balance risks and benefits and facility on an individualized basis. We want to maintain choice for women in their rights to use contraception and to use the method for them that will ensure continuance of use. COG

REFERENCES

1. Stuermer VM. Reflections on forty years of rendering medical care to women. *Yale J Biol Med.* 1995;68(5-6):191-194.

2. Winner B, Peipert JF, Zhao Q, et al. Effectiveness of long–acting reversible contraception. *N Engl J Med.* 2012;366(21):1998-2007.

3. Cleland K, Peipert JF, Westhoff C, Spear S, Trussell J. Family planning as a cost-saving preventive health service. *N Engl J Med.* 2011;364(18):e37.

4. Forrest JD. The end of IUD marketing in the United States: what does it mean for American women? *Contracept Fertil Sex (Paris).* 1987;15(3):291-300.

5. Mishell DR Jr, Sulak PJ. The IUD: dispelling the myths and assessing the potential. *Dialogues Contracept.* 1997;5(2):1-4.

6. Speroff L. A clinician's response to the oral contraceptive thrombosis controversy. *Human Reprod Update.* 1999;5(6):654-663.

7. Minkin MJ. Clinical application of antialdosterone-containing hormone therapy for postmenopausal women. *J Reprod Med.* 2007;52(2 suppl):165-168.

8. Furedi A. The public health implications of the 1995 'pill scare.' *Human Reprod Update.* 1999;5(6):621-626.

9. Farmer RD, Williams TJ, Simpson EL, Nightingale AL. Effect of 1995 pill scare on rates of venous thromboembolism among women taking combined oral contraceptives: analysis of general practice research database. *BMJ.* 2000;321(7259):477-479.

10. Raymond EG, Burke AE, Espey E. Combined hormonal contraceptives and venous thromboembolism: putting the risks into perspective. *Obstet Gynecol.* 2012;119(5):1039-1044.

11. Heinemann, LA. The changing scene—an unnecessary pill crisis. *Human Reprod Update.* 1999;5(6):746-755.

12. Foidart JM. Added benefits of drospirenone for compliance. *Climacteric.* 2005;(8 suppl 3):28-34.