Virtual Mentor

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VIEWPOINT History of Oral Contraception Audiey Kao, MD, PhD

- The Food and Drug Administration approved the first oral contraceptive in 1960. Within 2 years of its initial distribution, 1.2 million American women were using the birth control pill, or the "pill," as it is popularly known. Since its introduction, more than 300 million women worldwide have used the pill as a simple, safe, and effective means of achieving reproductive freedom. Thus, many observers consider the pill to be one of the most socially significant advances in modern medicine [1].
- Drs Gregory Pincus and Min Chueh Chang of the Worcester Foundation for Experimental Biology and John Rock, a prominent Catholic gynecologist, were instrumental in the clinical development and testing of the birth control pill. At the urging of Margaret Sanger, an ardent supporter of women's rights, Katharine Dexter McCormick provided the critical financial support for this breakthrough research. McCormick was heir to the International Harvester fortune and one of the first women to graduate from the Massachusetts Institute of Technology.
- The first oral contraceptive preparations contained 100 to 175 μg of estrogen and 10 mg of progesterone. At this dose, significant adverse effects were seen, including increased risk for venous thromboembolism. However, the modern pill contains only 30 to 50 μg of estrogen and 0.3 to 1 mg of progesterone, and at this lower dose, many of the concerns about adverse effects have been allayed [2-5].
- Research into testosterone/progestin combinations provides evidence that male hormonal contraception can be a safe and effective means of birth control [6-9]. However, the need for frequent testosterone injections reduces the acceptability of hormonal contraception currently available to men. Thus, the potential market is believed to be small and the pharmaceutical industry has not been active in this area of clinical pharmacology, contributing to the perception among women that they carry too much of the burden of responsibility for contraception [10].
- On May 17, 2000, the Field Museum in Chicago unveiled <u>Sue</u>, the largest and most complete skeleton of a *Tyrannosaurus rex* ever discovered. Sue is named after Sue Hendrickson, the paleontologist who discovered her. However, scientists cannot determine with any certainty that Sue is actually female. Thus, it is unclear whether she worried about giving birth and would have responded to oral contraceptives. Two full-size replicas of Sue will be

traveling the United States, educating people of all ages on the wonders of this dinosaur. Check "her" out for yourself if you get a chance.

References

- 1. Tyrer L. Introduction of the pill and its impact. *Contraception*. 1999;59(1 Suppl):S11-S16.
- 2. Rosing J, Tans G. Effects of oral contraceptives on hemostasis and thrombosis. *Am J Obstet Gynecol*. 1999;180(6 Pt2):S375-382.
- 3. Spitzer WO. The aftermath of a pill scare: regression to reassurance. Hum Reprod Update. 1995;5(6):736-745.
- 4. Farley TM, Meirik O, Collins J. Cardiovascular disease and combined oral contraceptives: reviewing the evidence and balancing the risks. *Hum Reprod Update*. 1999;5(6):721-735.
- 5. Leblanc ES, Laws A. Benefits and risks of third-generation oral contraceptives. *J Gen Intern Med.* 1999;14(10):625-632.
- 6. Buchter D, von Eckardstein S, von Eckardstein A, et al. Clinical trial of transdermal testosterone and oral levonorgestrel for male contraception. *J Clin Endocrinol Metab.* 1999;84(4):1244-1249.
- 7. Noe G, Suvisaari J, Martin C, et al. Gonadotrophin and testosterone suppression by 7alpha-methyl-19-nortestosterone acetate administered by subdermal implant to healthy men. *Hum Reprod.* 1999;14(9):2200-2206.
- 8. Comhaire FH. Male contraception: hormonal, mechanical and other. *Hum Reprod*. 1994;9(4):586-590.
- 9. Amory JK, Bremner WJ. The use of testosterone as a male contraceptive. Baillieres *Clin Endocrinol Metab*. 1998;12(3):471-484.
- 10. Glasier AF, Anakwe R, Everington D, et al. Would women trust their partners to use a male pill? *Hum Reprod*. 2000;15(3):646-649.

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