DMPA at Initial Visit Cuts Unintended Pregnancies

BY DIANA MAHONEY
New England Bureau

BOSTON — The immediate initiation of depot medroxyprogesterone acetate to adolescent and young adult women seeking the contraceptive injection resulted in higher continuation rates and substantially diminished unintended pregnancy rates at 6 months, compared with the use of alternative, short-term hormonal methods meant to bridge the period between initial request and injection at a later date, Vaughn I. Rickert, Psy.D., said at the annual meeting of the Society for Adolescent Medicine.

In a study of 334 young women ages 14-26 years who asked for depot medroxyprogesterone (DMPA) during a reproductive health visit at an urban family planning clinic, 101 women were randomized to receive their first DMPA (Depo Provera) injection at the conclusion of the visit, and 233 were randomized to an alternative "quick start" bridge condition whereby they were offered their choice of either oral contraceptive pills, the transdermal patch, or the vaginal ring, said Dr. Rickert of the Mailman School of Public Health at Columbia University in New York.

In a previous study, the Columbia investigators determined that patients who immediately initiated oral contraception at the time of their clinic visit (after a negative urine pregnancy test) were significantly more likely to continue the oral contraceptive than a control group of women who were provided with conventional instructions to wait until their menses began before starting oral contraception (Contraception 2002;66:141-5).

Historically, the rationale for waiting to initiate hormonal contraception "was to be sure the patient was not pregnant and to keep from altering the bleeding pattern," said Dr. Rickert. "Unfortunately, with the delayed initiation, many women don't take their first pill, and their motivation wanes." Similarly, asking women to return to the clinic at a later date for a DMPA injection means that some won't come back for it, thus increasing the likelihood for unintended pregnancies.

The immediate contraception protocol was designed to avoid this outcome, according to Dr. Rickert. While the earlier study looked specifically at the efficacy of the approach with respect to oral contraceptives, the current study sought to determine whether immediate access to DMPA would lead to greater method continuation—and thus pregnancy prevention—over a 6-month period, compared with delaying the injection and providing alternative contraceptive options for the interim period.

Unfortunately, with delayed initiation, many women don't take their first pill and motivation wanes; similarly, some don't come back for their first DMPA injection.

All of the women enrolled in the study had a negative urine pregnancy test at the time of their initial clinic visit, and none were breast-feeding or currently using other forms of hormonal contraception. In addition, none of the women had received a DMPA injection within the previous 14 weeks nor had any medical contraindications to hormonal contraception, said Dr. Rickert.

All of the subjects in both conditions underwent a history, physical, pregnancy test, and structured interview at the initial visit. All were instructed to return to the clinic in 21 days for a repeat urine preg-

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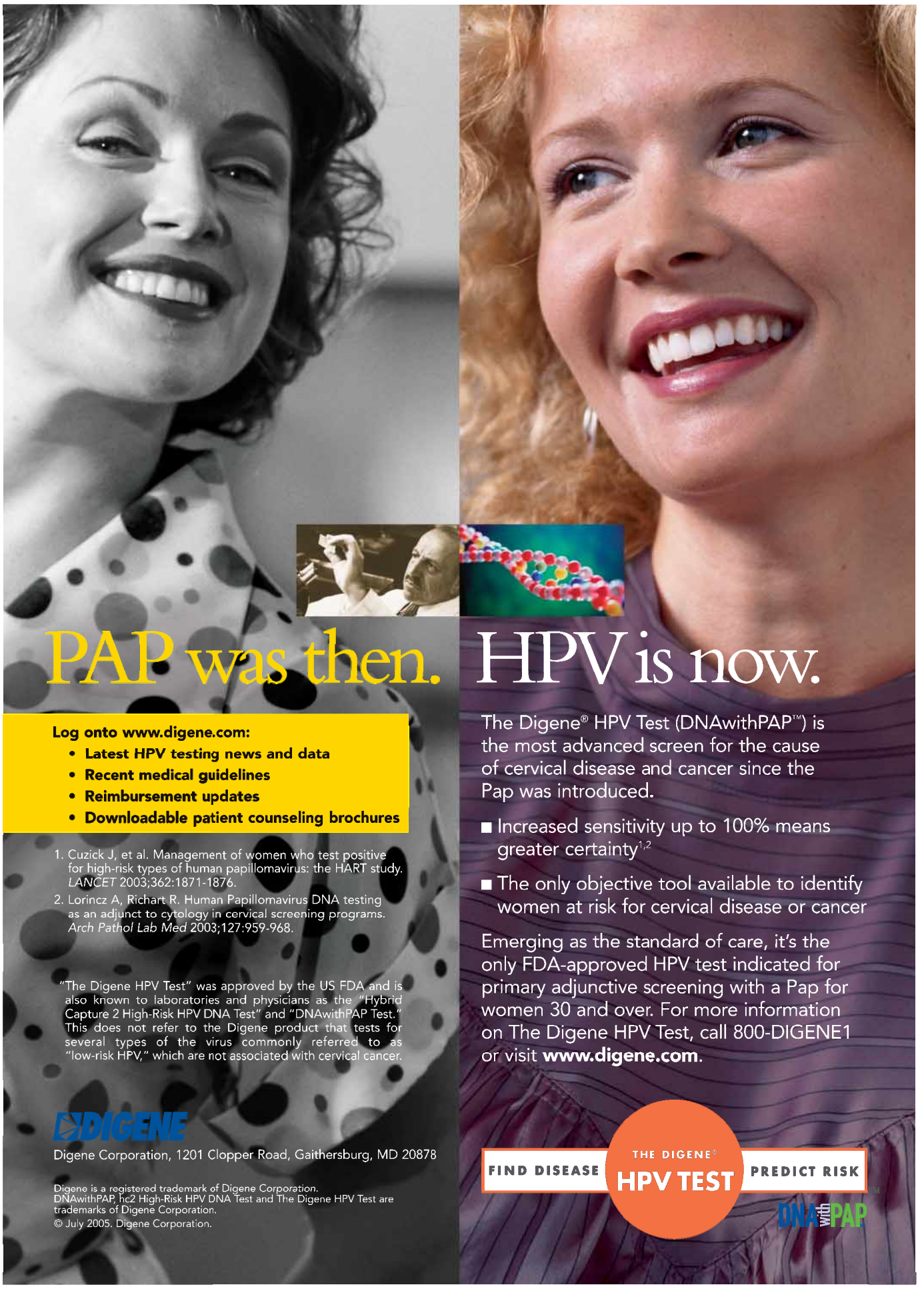
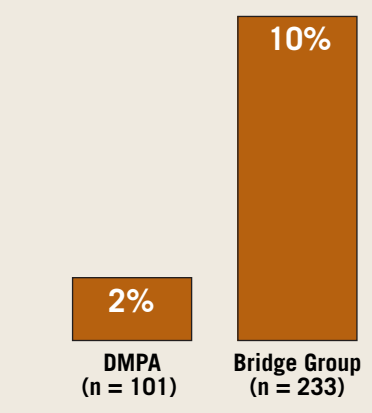


DMPA at First Visit Lowers the Pregnancy Rate



Source: Dr. Rickert

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nancy test and, for those assigned to the alternative condition, to receive their first DMPA injection, said Dr. Rickert. In addition, the women were followed through two subsequent appointments for DMPA injections and structured interviews.

The DMPA injections were discontinued in women in whom pregnancy was detected at any visit, in those who refused injection at any visit, or in those for whom more than 98 days had passed since their previous injection, said Dr. Rickert.

Of the 233 women randomized to the quick start bridge condition, 95 chose oral contraceptive pills, 100 chose the transdermal patch, and 38 chose the vaginal ring. Emergency contraception was provided to 41% of the entire cohort—31 patients in the Depo group and 83 in the bridge group—at the initial visit. Of women who received immediate injection of DMPA, 7 never returned for a follow-up visit, compared with 11 in the bridge group who never returned for a follow-up visit.

As of February 2006, 278 of the women had completed the study. Of this population, 54 were between the ages of 14 and 17 years, 118 were between the ages of 18 and 21, and 106 were between 22 and 26. The sample was more than 90% Latino and approximately 7% African American. "No significant differences were found in baseline demographic or reproductive characteristics," Dr. Rickert reported.

Bivariate analysis showed no statistically significant difference in the 21-day return rates among those who began DMPA immediately and those who were randomized to use a bridge method prior to the first injection. In addition, "rates of patient satisfaction [with the respective contraceptive protocols] between the two groups were not different at the second and third injections," said Dr. Rickert.

However, "continuation rates were statistically higher at 6 months in the Depo group compared to the bridge group, meaning that more women in the Depo group received their third injection," he said. "Also, the Depo group had significantly fewer pregnancies [2, compared with 23 in the bridge group] across the study period." Other factors independently associated with 6-month DMPA continuation rates included partners' awareness of DMPA use, returning for the pregnancy test visit, and history of emergency contraceptive pill use, "suggesting continuation is also affected by behaviors consistent with intentions not to become pregnant," said Dr. Rickert. ■

Some Women May Be Allergic To Hormones

The hormones progesterone and estrogen might provoke allergic antibody reactions in some women, which might in turn help explain various menstrual disorders, according to a prospective study.

Dr. Russell R. Roby and colleagues from the Roby Institute in Austin, Tex., found increased reactions to both hormones, compared with women who served as controls, in patients with menstruation-related symptoms (Am. J. Reprod. Immunol. 2006;55:307-13).

"Our data presented in this paper are the first to show the presence of IgM and IgE against different steroid hormones," the investigators wrote.

They noted that acne, asthma, epilepsy, allergic rhinitis, and several other disorders have been linked with menstrual cycle influences.

Their report "suggests the possibility of hormone allergy," they wrote, citing earlier studies linking hormone reactions to endocrine disorders and periodic rashes.

The investigators sampled the blood of 270 patients from their clinic who reported a change in their menstrual symptoms over the course of 2 years and tested for IgM and IgG antibodies to progesterone.

They also obtained blood samples from 288 unaffected women from a commercial laboratory, to serve as a control group.

When blood was tested via enzyme-linked immunosorbent assay, the test patients had a mean optical density (OD; a measure of antibody levels) of 0.17 for IgG and 0.32 for IgM, vs. a mean OD in the control population of 0.08 for IgG and 0.13 for IgM—a statistically significant difference in both cases.

The investigators also tested another group of 98 patients for IgE antibodies against both progesterone and estrogen, using a control group of 320 patients (the same 288 from a commercial laboratory plus 32 from their clinic with possible hormone allergy).

For progesterone, test patients had a mean OD of 0.42, vs. a mean OD of 0.11 in the remote control group and 0.23 in the clinic-based control group—a highly significant increase, the investigators noted.

—John R. Bell