COVER LEGEND

The multiple carcinogenic properties of estrogens are easily demonstrable in experimental animals. In man, however, data on carcinogenic effects of estrogens were uncertain until 2 reports were released from a group of investigators in Boston on the association of adenocarcinoma of the vagina with maternal diethylstilbestrol therapy.


This clustering of a rare tumor in an unusual age group during a period of 4 years led to the design of a classical retrospective, case-control epidemiological study. The undertaking of a study was suggested by Dr. Howard Ulfelder (b. 1911 in Mexico City), professor of gynecology, after the mother of one of his patients with vaginal adenocarcinoma indicated that she had taken diethylstilbestrol during her pregnancy. Dr. David C. Poskanzer (b. 1929 in Albany, N. Y.), associate professor of neurology, was the epidemiologist for the project. Herbst, Ulfelder, and Poskanzer published a definitive report in 1971 (New Engl. J. Med., 284: 878–881, 1971). In 7 of 8 cases, there was a history of diethylstilbestrol administration to the mother during pregnancy. Of 32 matched control women, none had received diethylstilbestrol during pregnancy. The therapy for these patients was administered between 1946 and 1951.

Thus, the orally potent, nonsteroidal estrogen, diethylstilbestrol, given during pregnancy, exerted an effect on the fetus that became clinically evident 14 to 22 years later. Although the initial studies suggest a "small" risk to the exposed offspring, it is possible that the full story at older ages and among males may change these estimates. The effect of dose and other specific factors also require more study. Dr. Herbst and his colleagues are continuing their studies in this area and have established a Registry to study the epidemiological, pathological, and therapeutic details of cases of these cancers that are occurring throughout the world. Over 100 such cases have been reported to them thus far.

The data already are unequivocal that diethylstilbestrol is carcinogenic for man during the gestational period and that its use during pregnancy, therapeutically or in food sources, should not be tolerated.

We are indebted to Dr. Herbst for the portraits. Dr. Herbst appears upper left; Dr. Scully, upper right; Dr. Ulfelder, lower left; and Dr. Poskanzer, lower right. All are graduates and members of the faculty at the Harvard Medical School, as well as on the staff of the Massachusetts General Hospital. The photomicrograph is of an adenocarcinoma of the vagina of Case 6 (Fig. 5) of the Cancer article.