

Dr. HELLMAN. Actually, there is no standard, Mr. Gordon, about how you count the dropouts. This has been one of the difficulties in getting comparable data. The best method now available is to use the life table method, which takes into account the months of use by the dropout and so on. When we get away from these two bits of information, the effectiveness and use, then we get much less precise data. We have two major fields that we have to consider; namely, carcinogenesis and the metabolic effects. And I do not believe, sir, that I want to cover in great detail for you anything more than I have covered in my summary, because I think Dr. Hertz covered carcinogenesis, and you have an eminent scientist here, Professor Wynn from England, who is going to cover some of the metabolic effects, and also Dr. Goldzieher who will testify before you today, and some others, I believe, have testified in the past.

Now, not reading from the record but just talking to you about carcinogenesis, we were up against a formidable problem. In the first place, we have had estrogen available to the medical profession since 1930, naturally occurring estrogen to be used to treat people. Almost since its inception, it became apparent that if you gave this compound in sufficient doses to experimental animals—laboratory animals, and five species were tested, as Dr. Hertz told you—you could produce carcinoma, cancers. The argument used by people who used estrogen—and I am not talking about estrogen for contraception; it was used for a lot of other things, used particularly to treat post-menopausal women. The argument used by doctors was that they had treated a great number of women, that they had not noticed any increase in cancer of the uterus or cancer of the breast, and that it would be unfortunate, indeed, if laboratory experiments were transposed directly to man. I think a biologist such as Dr. Hertz finds great difficulty in accepting this argument. And I must admit, myself, I have some unease about it, because it seems to me that biological systems must work according to the same general rules, and that whereas you may have species differences, resistance differences to certain diseases, and there are species differences in the resistance to cancer induced by estrogen, that in general, the same rules ought to apply. All of us who are responsible obstetricians and gynecologists who give estrogen to women, whether we give it for contraception or other reasons, always do so with the thought in the back of our mind that these are powerful drugs and that they may have an adverse effect, and we continue to keep these women under surveillance if we perform our task properly.

As Dr. Hertz indicated to you, there are some paradoxical reactions of cancer in human beings to estrogen and we cannot explain these. For instance, the removal of ovaries in women with cancer of the breast if they are premenopausal cures or delays metastases in between 30 and 50 percent. On the other hand, if they are after the menopause you can get amelioration of metastases by giving estrogen. I do not believe we have any explanation of that.

Mr. DUFFY. Doctor, could I ask you to comment for a moment on some of Dr. Kistner's comments about cancer?

It appeared to me—as a matter of fact, I might quote from the record, which is not an exact quote but just my remembrance, that Dr. Kistner said that he could not prove that Dr. Hertz was right, that