

thromboembolism can be dealt with rationally by eliminating use of the sequentials and cutting down on the estrogen content of the combined preparations without losing efficacy.

Senator NELSON. Then did I understand from your statement that the lower estrogen dosage pills were, in fact, as effective in preventing ovulation as those of higher dosage?

Dr. DAVIS. It depends on the formulation, but there are such combination type of pills which are in the range of 99.5 to 99.8 percent effective if taken on a very precise schedule. In fact, several of the compounds which are on the market in this country now, which correspond to such a dosage level, are more effective than the sequential type of pill. That is, there is greater hazard of pregnancy with the sequential type of pill with the estrogen alone being administered for the first half of the cycle. So not only are the sequentials more dangerous, they are also less effective, resulting in as much as 3 to 4 percent pregnancies.

Senator NELSON. If it is correct that the lower dosage pill is safer, is there any particular problem in producing the lower dosage pill?

Dr. DAVIS. There may be a problem from the point of view of getting approval, and there may be a problem of setting up distribution but there are available right now on the market at least four different pills which correspond to this kind of dosage recommendation. Several different companies have already moved in this direction, that is to lower the dosage of estrogen, so that I don't think anyone would be deprived of access to an oral contraceptive. They might have to throw away a 2- or 3-months supply and switch but I don't think anyone would be deprived of access to an effective oral contraceptive if they wanted to move in that direction, no, sir.

Senator NELSON. Do I interpret your testimony correctly, in summary, by saying that you do not object or you would prescribe or do you find it valuable or however it might be put, to prescribe the pill for short-term purposes of 2 or 3 years for the purpose of spacing pregnancies but that you object to long-term prescribing of the pill, is that—

Dr. DAVIS. That is substantially correct.

I would also add to the spacing criterion that the woman should be under medical supervision, and that she should be a healthy and relatively young woman, because the risk of complications increases in relationship to a lot of known conditions.

A woman, for example, who has a history of diabetes or even a woman with a strong family history of diabetes is not an ideal candidate for using oral contraceptives if she can use some other technique, bearing in mind that pregnancy itself carries hazards for such a woman.

The oral contraceptives that are presently available produce changes in carbohydrate metabolism which tends to aggravate existing diabetes and can make it difficult to manage.

There is also, if one is thinking about chronic use, a completely unknown hazard of possibly even inducing diabetes after taking some of these compounds for, say, 20 years. This risk just is not known. We can induce a type of diabetes in experimental animals by administering these compounds. That has been done.

Senator NELSON. Is it reversible?