

Dr. SALHANICK. In certain respects the metabolic studies have been quite extensive in that many people have done approximately the same thing, and we come to a point where we really suffer from ignorance. The next steps are very difficult or we do not have ways of getting at it, and this is some of the current state of the knowledge, and this will require more people, more different approaches, much more work, and research unfortunately is a slow uphill endeavor in any case.

Senator NELSON. By that you mean that there have been some fairly extensive metabolic studies but you are not prepared to draw any long-term conclusions from them, is that right?

Dr. SALHANICK. Yes. Some simple things we should know we do not know. We should know, for example, more about the dose response curves. I think that is very critical information. So that regardless of what kind of course we take we would be able to use the least dose which is effective contraceptively and, to my knowledge, and I may be wrong, but to my knowledge that is not now known.

So that this kind of information is necessary.

In addition, we do not have a considerable amount of epidemiological data. By that I mean we do not know the incidence of certain diseases; we do not even know how to define some of the diseases. If someone has an abnormal glucose-tolerance curve does that person have diabetes or does one have to have vascular changes to have diabetes. The terminology is very difficult in interpreting so far as whether the effects of the contraceptive steroids cause diabetes or just cause changes.

Now, until some of those items can be resolved it is hard to do a research project that says taking pills causes diabetes. We cannot do that step yet. We can only say that taking pills causes changes in the glucose-tolerance curve.

Senator NELSON. Would the studies indicate it may cause what is sometimes described as chemical diabetes?

Dr. SALHANICK. Yes, sir.

Senator NELSON. In your large volume that you edited, did the metabolic studies that were done by various individuals and groups roughly show this same thing in each of the studies?

Dr. SALHANICK. Yes. I think that is the case. I think almost everyone has found similar results. Percentages may vary, but the results are approximately the same.

Senator NELSON. Do you have any questions?

Mr. GORDON. The latest Dear Doctor letter, dated January 12, 1970, states that the sequential products are less effective and more hazardous.

Can you explain to us what the usefulness of the sequentials is since there are combinations that are more effective and less hazardous?

Dr. SALHANICK. I would have a difficult time explaining the usefulness of sequential products in the light of the combinations which are available because sequential products usually have larger doses of estrogen, and most people have the impression that the estrogen is more obnoxious than the progestational agent. In view of its decreased efficiency as a contraceptive, I really do not see that there is a great place for them.