

Dr. WYNN. It will be published within 2 to 3 weeks. I was in contact with the individual yesterday on the telephone.

Senator NELSON. We will wait.¹

Senator MCINTYRE. I think, Mr. Chairman, it might be well if some arrangement could be made so that a copy of this could be obtained and made a part of the record, the published study.

Thank you very much, Doctor.

Mr. GORDON. Dr. Wynn, on page 9 you state that "these changes in serum lipid"—is that the way you pronounce it, sir?

Dr. WYNN. You can pronounce it any way you like. It doesn't matter.

Mr. GORDON (continuing). "cause their lipid values to resemble more the pattern found in men and most-menopausal women." Are you saying here that young women who take the pill acquire certain characteristics of older people?

Dr. WYNN. In the respect of their serum protein patterns, yes.

Mr. GORDON. What is the significance of that?

Dr. WYNN. Well, the significance is that which I have described. The risk of the accelerated development of atherosclerosis.

Senator NELSON. That is a risk not yet proven?

Dr. WYNN. That is a risk which is not yet proven.

Mr. GORDON. One other question: I read some place that Dr. Howard Tifton of George Washington University is quoted as having said "liver function abnormality occurs in approximately 20 percent of women taking oral contraceptives." Do you have any comment on that?

Dr. WYNN. Well, Mr. Gordon, the term "liver function" as such is pretty well meaningless. It depends on what you mean and what you measure. The liver function abnormality means something to one doctor and something else to another.

Now, if you mean a conventional liver function test such as, for example, body rubin concentration in the blood level, which I imagine is what is meant, a conventional test, it doesn't surprise me that those changes have been found, although other people have reported lower incidence of abnormalities. More important than the conventional liver function test is to look at what is happening to the function of the liver as the seat, if you like, of many of the metabolic reactions which occur in the body, and here you find many abnormalities or alterations.

There is no doubt in my mind that many of the changes found in glucose metabolism and intermediate metabolism, which I haven't had a chance to go into, arise from alterations in the function of the liver, but that does not mean to say that the conventional liver function tests would reveal them.

If you will examine a liver with an electromicroscope, if you will take cells out of the liver and examine them under the electromicroscope of women taking oral contraceptive medication, you will find some extraordinary changes.

Mr. DUFFY. Dr. Wynn, Senator Dole regrets very much that he is required to make a quorum in the Agriculture Committee. He has several questions which he has left here, and which he would like me to ask you, and I will read them and perhaps for the sake of brevity

¹ This and other supplementary information, when available, will be incorporated in a subsequent volume.