peutic effect of these agents on rheumatoid arthritis. In 1962 two preliminary reports were published (Balis and Demers: Arth. & Rheum. 5:284, 1962; Rotstein, J,. Gilbert, M., Cummingham, C., Estrin, I. and Pincus, G.: Arth. & Rhum. 5:655, 1962). Beneficial effects from use of these agents in treating patients with rheumatoid arthritis were equivocal.

The first report of a potential adverse effect of oral contraceptive agents on patients with rheumatic disease appeared in 1966. Since that time, at least five preliminary studies have been recorded in the medical literature. These reports appear to be in conflict. On close examination, the conflict can be resolved if one recognizes that certain of the studies have been conducted on apparently healthy young women reporting to birth control clinics and in the other studies, the investigators have dealt with young women with incipient or early rheumatic disorders. A South African physician, Dr. B. L. Pimstone reported that a patient with systemic lupus erythematosus suffered a severe exacerbation of her condition during administration of an oral contraceptive drug. Symptoms remitted on discontinuation of therapy. (S. Afr. J. Ob. Gyn. 4:62, 1966), Evaluating Dr. Pimstone's clinical report, I believe that he was justified in concluding that the oral contraceptive drug was responsible for a flare in the patient's condition. The first report suggesting that one of the standard laboratory tests used in differential diagnosis of rheumatic disease could be effected by administration of oral contraceptive drugs was published by Dr. E. M. Schleicher in the spring of 1968 (Lancet i:821, 1968). He reported positive LE cell tests in ten young women and that the tests became negative 4–8 weeks after discontinuing the use of oral contraceptive drugs. Positive tests are most commonly observed in patients ill with the condition systematic lupus erythematosus. This condition is one of the most serious major rheumatic diseases. It is currently recognized that other drugs can produce this laboratory abnormality (isoniazid, procainamide, hydralazine, etc.). It should also be pointed out that expert rheumatologists currently disagree as to whether drug induced changes in this test can occur in "normal" individuals or if individuals who develop positive tests have incipient or early disease. During the course of our investigations, we had the opportunity to discuss with Dr. Schleicher the nature of the patient population from which he reported these ten laboratory abnormalities. Dr. Schleicher's laboratory receives blood specimens from a large number of referring physicians, and he estimated that these ten young women were identified during the course of performing 2 or 3 thousand routine tests for LE cells. In addition, the referring physician had requested this test because the patient had come to his office with symptoms that justified performing this particular test. Therefore, these patients should not be considered healthy, normal young women. This particular point will be of some importance when I review our conclusions dealing with patients studied in an arthritis and compared with those we have studied from a birth control clinic population.

Subsequent to Dr. Schleicher's report, another group of investigators tested the serum from 30 healthy young women selected from a birth control clinic population. These invesgators did not find any abnormal LE cell tests, although one patient had an abnormal test for one type of antinuclear antibodies (anti-DNP), and one had an abnormal test for rheumatoid factor activity. These two tests are also important to physicians in the differential diagnosis of patients with rheumatic disease. (Dubois, E. L., Strain, L., Ehen, M., Bernstein, G., Friou, G.J.: Lancet ii:679, 1968) These authors concluded that the frequency of these abnormalities must be extremely rare. It should be reemphasized that they had studied 30 apparently healthy women reporting to a birth control clinic and as noted previously this was a different population of women than had been reported by Dr. Schleicher.

In the fall of 1968 Dr. D. J. Gill (J. Chron. Dis. 21:435, 1968) reported the results of a 2 year survey of the incidence of rheumatoid arthritis in women (84% black, 16% white) taking oral contraceptives and seen in a birth control clinic setting. She concluded that the prevalence (0.66%) of rheumatoid arthritis in 3,014 women taking oral contraceptives was no greater than that noted in other surveys of the general population. Indirect comparisons of population surveys for rheumatic disease are difficult to interpret. Reviewing Dr. Gill's results, we were surprised to find that the incidence of rheuamtoid arthritis, the most common form of inflammatory joint disease, increased from 2.98 per 1,000 to 6.63 per 1,000 during the 2 year interval of her study. This exceeds by more than 50% the rate of increased incidence of rheumatoid arthritis with