It had clearly been demonstrated in experimental animals. It looked as though it were more powerful than cortisone or any of the other then commonly used drugs in the treatment of arthritic patients.

It soon became apparent that this drug quickly controlled the pain and inflammation of gouty joints. After treating 30 patients with acute gout and observing uniformly favorable results with minimal side effects we reported our experiences in Stockholm, Sweden, before the European Congress on Rheumatic Diseases in 1965. Other critical clinicians throughout the world have since confirmed these early studies, and today there is general agreement that this drug is as effective and as safe as any other in the treatment of acute attacks of gouty arthritis.

Our next effort in the area was to investigate patients with rheumatoid arthritis of the spine. Dr. Calabro has told you of his investigation of this variety of arthritis affecting healthy young men in which the disease attacks mostly the spine. The results were excellent, and the drug was well tolerated. Many of these patients were confined to bed, but returned to gainful employment within weeks after the beginning of therapy with this new compound. Other investigators have made similar observations, and today there is no debate about the value of indomethacin in patients with rheumatoid arthritis of the spine.

There is still some controversy about the use of indomethacin in rheumatoid arthritis. This is the great crippler and one of the commonest of the rheumatic diseases. It is in this type of arthritis that the clinical investigator has the greatest difficulty in evaluating drugs, or indeed the effect of any procedure.

I refer primarily, Senator, to the procedure called synovectomy that the orthopedic surgeons are now doing; that is, taking out joint membranes for this disease. We have had great trouble in deciding whether these procedures are really justified or not. They are being done throughout the world without any proof that they are actually beneficial to the patient.

So the course of this disease, as you already have heard, fluctuates up and down, notoriously rises spontaneously and suppresses spontaneously, whether you treat the patients or do not treat them. Furthermore, it has been expressed repeatedly before your committee that there is no satisfaction or sense of security in the methods of testing either a surgical procedure (synovectomy) or a new drug that is handed to the clinician with the question: Is this or is this not an effective agent in this capricious, fluctuating illness?

Our group undertook this difficult problem of attempting to evaluate indomethacin in 1963. We devised a series of objective tests—not including the patient's symptom response—with the aim of expressing a reliable opinion. These studies were based upon the best objective measurements available and conducted by an experienced clinician. To control our data further, we included periods of therapy using placebo capsules, during which neither the patient nor the doctor knew whether his patient was actually taking the real drug or a "dud" pill. In 1965 we published our experiences with 55 patients with rheumatoid arthritis treated with indomethacin. In that report we stated, "Indomethacin suppresses joint inflammation and inproves joint function, but may require up to 2 to 4 months to obtain maximum therapeutic