marily on analgesics and combinations thereof, five out of 10, but only infrequently prescribed indomethacin, phenylbutazone, or gold."

If you look even more critically at this report, you will note that 18 percent of pediatricians were using adrenocorticosteriods for the care of patients with juvenile rheumatoid arthritis. This is a most disturbing situation in young children, because steroids have many more hazards in the child than in the adult. For instance, it will suppress growth in height and weight. It may cause thinning of the bones, notably in the spine, which may then go on to vertebral fracture. Pseudotumor cerebri may also occur in children.

I have recently published all of the notable side effects of steriods that are unique to children. This data can be found in two parts, in the September 28 and October 5 issues of the New England Journal of Medicine in 1967.

We should also note that the pediatricians elected to use simple analgesics in half of their rheumatoid arthritis children. Accordingly, they are using agents that do not have the needed antirheumatic effect. How do they expect to get at joint inflammation with simple analgesics? How do they expect to restore joint motion without first alleviating joint pain and inflammation?

I sincerely hope, despite the current controversy and confusion, that investigative pursuits of indomethacin will continue. Only then can we more fully understand the role of this extremely useful and valuable antirheumatic agent. I have now been working with this agent—this is my seventh year. While I have only published reports of its usefulness in ankylosing spondylitis, I have used it in other disorders. Such data is certainly not scientifically organized and should not be presented, especially since none of it has been published. But I have also watched the growing literature on indomethacin very critically, and I have tried to present my estimation and fair appraisal of this most needed antirheumatic agent.

There are many conditions in the rheumatic disease field for which we have few agents. You may remember that yesterday, Mr. Gordon, we listed all of the agents we might use in rheumatoid arthritis. We listed, I think, five or six. For ankylosing spondylitis, a not uncommon disease, we can list only three agents. Besides indomethacin, there is phenylbutazone, which has its toxicity. The original report of phenylbutazone in spondylitis cited a 37-percent incidence of side effects.[1] X-ray therapy to the spine has now been generally abandoned because of the increased risk of leukemia. Court Brown, reporting in the British Medical Journal (2:1327–1332, 1965), cites 49 cases of chronic myelogenous leukemia due to radiotherapy. This has increased the hazard of leukemia from X-ray therapy in the spondylitis patient to some 10 times that of the population at large. Leukemia cases did not occur only after the forth, fifth, or sixth years after stopping radiotherapy, as we initially believed, but are occurring even now 14 and 15 years after radiotherapy was stopped.

I need indomethacin to treat my patients with ankylosing spondylitis, as indeed we need it for those patients with rheumatoid arthritis who do not respond to more conservative measures. Indeed, indo-

[1] See Toone, E. C., and Irby, W. R.: "Evaluation of Phenylbutazone (Butazolidin) in the Treatment of Rheumatoid Spondylitis: Report of 50 Cases." Ann. Int. Med., 41: 70–78, 1954.