

MEDICINE

Cortisone for Sarcoidosis

The arthritis wonder drug may prove useful in treating a mystery disease often confused with TB, syphilis and other diseases. No treatment for it is now known.

► CORTISONE, wonder drug for arthritis, is now on trial as a possible remedy for a mystery disease known medically as sarcoidosis.

This disease is a chronic ailment affecting lymph glands, lungs, bones, intestines, spleen, liver and skin in various combinations. That is, some patients will show lung and skin symptoms, others gland and lung symptoms, and so on. The disease has been confused with tuberculosis, Hodgkin's disease and syphilis.

The trials of cortisone in sarcoidosis are being made by a medical team from Emory University School of Medicine and Grady Hospital, Atlanta, Ga. So far they have not gone on long enough to show what results, if any, the drug will have.

No other effective treatment for the disease is known. No cause for the disease has yet been discovered, but the Atlanta physicians are getting a lead to this through

studies reported at the meeting of the National Tuberculosis Association.

The disease is definitely not a tuberculous infection, they believe as a result of their studies. A follow-up study of 350 sarcoidosis patients in military hospitals during World War II shows that the patients are predominantly from small towns in the southern United States. This seems to rule out its being a tuberculous infection, since tuberculosis is more prevalent in large cities.

The Atlanta doctors, Max Michael, Jr., and Paul Beeson, are going to interview everyone of the 350 patients whom they can locate through Veterans Administration records. They plan to question these sarcoidosis patients about every detail of their history, where they have lived, what diseases they have had, and so on. From this information they hope to discover a common factor which will reveal the cause of this still mysterious and not too rare disease.

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NUCLEAR PHYSICS

From Now On: Ray Study

The study of cosmic rays will give us greater knowledge of outer space in the future and also more information on the inner atom.

Seventh in a series of glances forward in science.

By WATSON DAVIS

► AN intensely "practical" person, who is also unimaginative, may consider quite useless the study of elusive particles that come to earth from outer space.

Actually the cosmic rays, studied intensely for two decades, are one of the few ways in which we can sample both the outer universe and the inner atom.

They are the most energetic bombarding particles that man has ever observed. There are created in the far reaches of the cosmos fragments of atoms and bits of matter and energy that, despite our great atomic accelerators and bombs, we have no hope of exceeding or even equaling here on earth.

Constantly cosmic radiations plunge into the earth's atmosphere, smashing their way through the atoms there. There are tremendous showers and cascades of particles, with the highest energies yet measured, and these are not only constant but uncontrollable. They are no less real because we can

not feel them or see them or because they seem to do our bodies no harm.

Balloons are sent with cosmic ray recording instruments to the greatest heights attainable. Airplanes are flown on high-altitude research missions and laboratories are set up on mountain tops.

In a world that is concerned about atomic superbombs, made of hydrogen or some other light chemical element, every scrap of information about the fundamental particles of nature and the way they fit together may be productive. The present atomic bomb was born of experiment and theory.

Bombs of the future—even beyond the so-called hydrogen bomb—and peaceful applications of atomic energy are likely to come out of the fundamental information being gathered from cosmic rays. Soviet scientists, incidentally, have been in the forefront of cosmic ray research.

What holds the nucleus (heart) of the atom together is a central problem. Part of the answer came through discovery in cosmic rays of the meson, a binding par-

ticle of fleeting life when free. Only two years ago mesons were created in the 184-inch Berkeley cyclotron, and this gives a controlled method of producing one sort of meson—for there are at least two kinds, a heavy one called "pi" produced by bombardment and one lighter "mu" sort that is born of the decay of the heavy one.

Mesons can be thought of as fundamental particles entering into hearts of matter, so important in the fast-moving theories and experiments of our atomic race.

For investigations of mesons, the cosmic rays are the simplest tool. Scientists can study them with relative simplicity by exposing special photographic plates, under various conditions, at various places on, beneath and above the earth. When you hear of some physicist going to some high mountain or to some strange and remote place, his interest is in the geography of the atom instead of the earth's geography. He will be receiving messages from other galaxies, perhaps, that will explain the atom.

For the future, there can be expected:

A. Discovery of the birthplace of the cosmic rays, which various theories have coming from the stars, other galaxies and space itself.

B. Better understanding of the atom-smashing of the cosmic radiation will show more precisely how the nuclei of the atoms are put together, what particles are contained in them and how they may be tapped for energy.

C. Although most cosmic radiation is light stuff, atoms as heavy as iron have been demonstrated in cosmic radiation. These and other samples of matter in the outside space should help us unravel further the puzzle of the universe.

D. Reversing the accent on getting energy from atoms, cosmic ray study may warn us as to what atomic reactions should be avoided for fear they will go too far and create an uncontrollable chain reaction on earth.

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PSYCHIATRY

Better Recovery Odds for Self-Destructive Patient

► THE mental patient who slashes his own wrists or bangs his head against the wall has a better chance of later recovery than does the patient who makes an attack on his nurse or fellow-patient.

This was revealed by study of 400 accident and injury reports in a mental hospital. Results were reported to the Eastern Psychological Association meeting in Worcester, Mass., by Dr. George W. Albee, of the Western Psychiatric Institute and Clinic, Pittsburgh.

Those suffering from the very common mental disease schizophrenia are more likely to take out their aggression on others than to attack themselves. But the outlook was found to be better for those who punish themselves. This was true for the schizophrenics as well as the other cases.

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