When a mountain climber reaches the top of a tall ridge, he sees a higher one ahead. Medical science faces the same challenge. Now that bacteria have been mastered, and viruses are for the most part understood and subject to some control — only the human parasites, of which amoeba constitute a large part — remain a field of mystery in the infectious diseases, yet to be conquered.

They are complex living creatures, organisms responsible for several human illnesses, and probably are the causes of some chronic diseases whose origins are as yet unknown. These are complicated one cell “animals,” clever at invading our bodies and evading our defenses. Their very strange life cycles make them scientifically intriguing, but medically difficult to diagnose and treat.

Amoebae are far more complex than viruses and bacteria. They are microscopic creatures which live as parasites in the human body. They cannot survive for very long on their own, being killed by drying, sunlight, chemicals of many sorts, and by the large white blood cells of the body, the macrophages — for which they may easily be mistaken under the microscope. (Unless isolated by the thermotrophic technique described by the late Dr. Roger Wyburn-Mason.)

Amoebae very often invade the body of another life-form to survive. From that host, they take food and shelter, in return they add nothing of which we are aware. Because they depend on their human hosts, they must not cause death until their own life cycles are complete, and their “feasts” on the tissues of the patient are exhausted.

For this reason, the diseases they cause produce chronic, long-term and debilitating effects. The characteristic signs of these infirmities are pain, swelling, inflammation, weakness and anemia — because they live in soft structures such as synovial linings and the fluids of the joints, and release toxic substances which may cause gradual destruction to adjacent tissues.

Most varieties of amoebae are relatively harmless. With improved sanitation, effective hygiene and safe water supply, we have little to fear from them. But the person who is weak, ill, in great stress, or poorly nourished is at greater risk of infection. The fact that they are destroyed by bile and bile salts indicates the role of the liver and the gall bladder in the defense of the healthy individual to amoeba which enter the gastro-intestinal tract.

While the living parasites cause the active disease and the spread of the infection from one part of the body to another, killing the parasites may release toxins which produce symptoms which make the disease temporarily seem worse. This is a cause of the Jarisch-Herxheimer reaction. (Herxheimer reaction is a clinical confirmation of the cause of the disease and an indicator of the therapeutic benefit of the drug. The correlation is close.)

Though the Rheumatoid Diseases are of fairly recent origin in medical history and recognition of the pathology, dating back to not more than 200 years or less, their spread parallels the advances of modern civilization. These are the most common in the most civilized countries, where diets are richest in fats and proteins and high in processed white flour foods and refined sugar. These organisms “eat well,” to begin with at least, on their well-nourished hosts, and are rarely found in lands where almost all foods are “natural and unprocessed,” and the “natives have a lean and hungry look.”

Some of these amoebae have a voracious appetite; they can practically eat their weight in blood in seconds. Then, when one joint has gone through the acute phase and suffered all the damage from the infection and inflammation, and the amoebae are “feeding less well;” then, the amoebae travel around in the patient’s body looking for “other joints to conquer,” often aided by the administration of cortico-steroid drugs, prescribed by a well-meaning physician who is “treating the symptoms but not the disease.”

But the doctor’s dilemma can be understood and appreciated. How are you going to treat a patient who has rheumatoid arthritis, said to “have no known cause and no known cure?”

With many parasites, there are known animal, insect and human vectors and carriers. These are not known or identified for the specific amoeba we are accusing as the cause of the rheumatoid disease.

We do not know how they are transmitted; they do not seem to spread from man to man. But they have been found in many water and food supplies and in the intestines of apparently healthy persons, as well as in “all tissues of the patients with the acute active forms of Rheumatoid Disease” (R. Wyburn-Mason.) [Since this was written, we’ve accepted that many microorganisms might cause similar health problems.]

In many persons, there is probably natural immunity to the amoebae believed to cause “inflammatory rheumatism,” as rheumatoid arthritis is often called around the world. That they do contain antigens is shown by the antibodies and “immune complexes” against amoebae which they develop in affected patients. Resistance is dependent upon the good health and natural immunity of the patient. (This may be from birth, and the transmission of immunity from the nursing mother to an infant occurs in the early “colostrum milk,” and may be weak or absent in the “bottle-fed” baby.)

The treatment goal of the future may well be a specific vaccine for the amoebae, developed from the blood (human sera) of “recovered” patients with high antibody titers.

But why should the physician feel discouraged when a patient does not seem to respond to treatment with one of the anti-protozoal drugs?

There are some good biological reasons to consider:

1. The amoebae are capable of some very clever immunological
Medical data is for informational purposes only. You should always consult your physician, or one of our referral physicians prior to treatment.

tricks. When they penetrate the body, they may live in the tissues for months, perhaps years, before producing symptomatic rheumatoid disease. They can live, not only in the synovia of the joints but in the connective tissues of the muscles, blood vessels, lymphatics, bursae, liver, eyes, and lungs, and perhaps in the brain and spinal cord. They conceal themselves by coating with the protein of the host. [See "Microbiology of Peridontal Infections," http://www.arthritistrust.org, identified relationship between amoebae, virus and bacteria.]

2. Some masquerade as large histocytes, eosinophils or macrophages, and can only be identified by teasing them out into warm saline by Dr. Wyburn-Mason’s methods where their identifying "tails," pseudopodia or flagella, can be seen under the microscope — a most difficult process.

3. The amoeba may cover itself with surface antigens from the body’s own immune system. It has “disappeared.” The body cannot see it, so it won’t reject it. Any vaccine, therefore, would have to be given to PREVENT rheumatoid disease and would have no value in treatment.

4. The amoeba may vary its surface to prevent capture or destruction, coating itself with a membrane, with antigen molecules, or change into a trophozoite form (although this has not been demonstrated in vivo).

5. The amoeba may even resemble the same cells that set out to destroy them, the macrophages, or the (histocytes), eosinophils — thus accounting for the higher count of some of these cells in cases of active rheumatoid disease.

Plasmopheresis — filtering the blood to remove macrophages — may result in removing most of the amoebae.

The amoebae seem to find a hiding place where the body’s immune system would never think of looking.

6. Amoebae can also manufacture enzymes, which reduce the effectiveness of the body’s immune system, breaking up the antibodies so they have little effect. This neutralizes the patients’ natural defenses against these organisms.

7. And finally, the amoebae can generate chemicals which resists the very drugs which in the beginning may kill them. A few may survive the initial drug therapy. Then, by a process of mutation, the remainder acquire a resistance to the medicine intended to destroy them.

As a result, the physician searches for more different and more powerful anti/protozoal drugs, while all the time the few surviving amoeba are lying-in-wait to resist the next attack.

How do we know so much about the rheumatoid disease amoebae which we have not seen, not proved, or have not yet identified?

We know these tricks because amoebae resemble the families of other and more familiar parasites associated with other chronic diseases such as malaria, tuberculosis, syphilis, and the larger parasites of tropical diseases.

The problems presented here should not discourage the dedicated and intelligent physicians who are trying to treat their rheumatoid disease patients with these new methods.

Rather, these difficulties demonstrate the very great field which has been opened up for medical research and the very great need for the work of The Rheumatoid Disease Foundation to raise funds for supporting clinical and laboratory investigations at the present time.