Appendicitis is an inflammation of the appendix that can occur at any age, but is most common between the ages of five and thirty. If one is diagnosed with appendicitis, their appendix will be removed and there are usually no further complications. However, if the appendix is not removed in a timely manner, it may rupture, causing peritonitis (infection of the abdominal cavity). This is a life-threatening disease that requires intensive therapy.

The nature of appendicitis requires a quick diagnosis to prevent peritonitis. This is not always possible using the current methods of detecting it. Currently, computed tomography, or CT scan is used. After the CT scan is done, the doctor must determine if the change in the structure of the appendix is due to an infection or another reason. For this procedure, a large amount of contrast must be given to the patient. This may cause complications in some patients. Also, a high dosage of radiation is needed. Another drawback to the CT scan is the results may be inconclusive and hospital stay may be required.

Palatin Technologies developed LeuTech to solve these problems. LeuTech is a combination of lyophilized monoclonal antibodies and Technitium solution and is injected into the blood. The monoclonal antibodies attract to the polymorphonuclear leucocytes (PMN cells). These are white blood cells that are common with appendicitis. Technitium is a solution that is emits gamma rays. These rays are easily picked up by a gamma camera. Since the antibody binds to the PMN cells that are at the infection site, it can easily be seen if there is an infection there. LeuTech will accurately predict the presence of appendicitis eighty-eight percent of the time. Ninety-six percent of the time, it will accurately predict the absence of appendicitis.

LeuTech is beneficial to both patients and doctors. When patients receive a positive scan, they will know instantly that surgery is needed and will not have to await a hospital observation. A negative scan will avoid unnecessary surgery. The procedure is fast, easy, safe, and less costly than other present methods. Within one hour, both the patient and doctor will know the diagnosis.

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