

Juvenile Idiopathic Arthritis

Juvenile Idiopathic Arthritis (JIA) affects about 1/1000 children under the age of sixteen. For a child to be diagnosed with JIA several criteria must be met. There must be joint swelling or at least two of the following: limitation of motion, tenderness, pain on motion, or joint warmth. These symptoms must be present for at least six weeks and all other causes of arthritis must be ruled out. Other common causes for joint swelling and pain include infection, trauma and toxic synovitis. There are also many other less common forms of arthritis that can occur in children such as Lyme disease, psoriatic arthritis, and arthritis associated with inflammatory bowel disease.



Diagnosis:

There is no specific test for JIA. Certain lab tests are suggestive of an inflammatory process but none are diagnostic of JIA.

Clinical presentation:

Systemic JIA

In this type of JIA, which occurs in about 10% of children with JIA, symptoms include daily fevers and a characteristic rash. These children rarely have eye problems but may have liver, heart or lung problems. Systemic JIA may develop at any age but is most common between the ages of 1 and 6.

Polyarticular JIA

When a child has arthritis in 5 or more joints he or she is said to have polyarticular JIA. There are two types of polyarticular JIA, distinguished by the presence or absence of rheumatoid factor (RF), which is determined by a blood test. RF positive patients are almost always girls and are usually older than 8 years when they are diagnosed with arthritis. In general, RF positive patients are more likely to have a poor functional outcome and most closely resemble adult-onset rheumatoid arthritis. Polyarticular JIA may occur at any age and is three times more common in girls than boys.



Pauciarticular JIA

Pauciarticular JIA involves four or fewer joints. Half of these patients have only one affected joint and the joint most often affected is the knee. This group is further divided into early onset and late onset. Early onset patients are typically under 5 years old and are more often girls than boys. These children are at the highest risk for eye problems related to their arthritis but have the best prognosis for the joints involved. Late onset is more common in boys and usually affects the large joints (shoulders, hips, knees) and spine. The eyes are less likely to be involved with the late onset type. Pauciarticular JIA usually resolves over time with the average duration of symptoms being about 2 1/2 years.



Knee with severe synovitis

Treatment:

Goals for treatment of patients with JIA include relieving symptoms, maintaining joint range of motion and muscle strength, preventing or minimizing joint damage, and maximizing functional status. The primary treatment for the joints involved in JIA is anti-inflammatory medication (NSAIDs). These medications must be taken in large doses and continuously over a long period of time. It may take up to a month for the effects of the anti-inflammatory medication to be noticeable. NSAIDs should always be taken with food; however, stomach irritation from NSAIDs is less common in children than in adults. Some children with JIA do not get adequate relief of their symptoms from NSAIDs. Oral methotrexate or injection of steroids into the joint may be used on these patients. In addition to medical therapy, splints may be used to help maintain range of motion during episodes of increased inflammation. Gentle range of motion exercises are also used to help keep the joints from becoming stiff. Arthroscopic surgery may be considered in certain cases when the inflammation has failed to improve with medical management. While removal of the thickened and inflamed synovial lining of the joint is not curative, remission of the disease can occur and progressive injury to the joint halted.



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