INTRODUCTION

Arthroscopy is playing an increasingly important role in the treatment of intra-articular pathologic states. Intra-articular arthroscopic surgery may be relatively simple, requiring little time, or it may be extremely difficult and time consuming. It has great appeal to the public, as well as to other members of the medical profession and, as a result, its use is distined to grow rapidly (*Casscell, 1980*).

Although the first recorded endoscopic examination of human knee joint occured in 1919, by Dr. Kenje Takagi from Japan, it is only with the recent developments in electronics and optical equipment that the value of arthroscopy is becoming recognized (*Jackson and DeHaven, 1975*).

In the last several years, there has been an explosion of interest in the field of arthroscopy. Although as early as in the 1920s and 1930s several investigators were working at the development of arthroscopes and were visualizing the interior of joints arthroscopically, it was not untill Dr. Masaki Watanabe introduced his number 21 arthroscope and published his atlas of Arthroscopy in 1957 that the concept gained any widespread serious interest. This arthroscope was the first to became widely used. By early 1970s, several investigators using this scope had published studies demonstrating the diagnostic accuracy and the value of this technique (*Sprague, 1982*).

Arthroscopic surgery has proved to be a major advance in the field of orthopaedics. There is no doubt that the ability to visualize the structures of the interior of the joint can greatly increase the diagnostic accuracy of the clinician and also provide him with information that enables him to plan his treatment program in an intelligent way (*Jackson, et al 1975*).

Diagnostic accuracy plus the ever increasing ability to provide definitive treatment with minimal morbidity and fewer complications, is of obviously advantages to patients. Through the early diagnosis and treatment of knee joint pathology, it is

conceivable that orthopaedists will prevent the relentless deterioration of joints that has been seen often in the past, and by doing so, will enter a new era of saving joints rather than salvaging them (*Jackson, 1986*).

It has also become apparent that the therapeutic aspects of arthroscopy include not only surgical procedures, which can be grouped under the heading of arthroscopic surgery, but also non-surgical procedures such as joint lavage and lysis of adhesions. Therapeutic arthroscopy has become the logical extension of diagnostic arthroscopy. Surgery under endoscopic control is now a practical reality. Based on the experience of arthroscopists, it appears that definitive surgical treatment under arthroscopic control, with minimum morbidity, is possible in almost one half of the knees that are seen in a routine knee parctice (*Jackson, 1983*).

As experience with diagnostic arthroscopy increased and as instrumentation improved, a natural consequence was the desire to arthroscopically treat some of the condition that were so early visualized. The initial operative arthroscopic procedures were performed by Dr. Massaki Watanabe's group in Japan, and as early as 1962, Dr. Watanabe had removed a bucket handle meniscal tear arthroscopically. In the following years, the members of this group, and particularly Dr. Hiroshi Ikeuchi, continued to develop therapeutic techniques. In the United States, Dr. Richard L. O'Connor was the first to vigorously investigate the concept of arthroscopic surgery, and in 1971 he began performing simple intra-articular procedures. Greatly encouraged by his early results he became a driving force in the development of new techniques and new and improved instrumentation, for the next several years. By 1974 he was routinely removing meniscal lesions arthroscopically. In the next several years, multiple investigators in north America and Europe as well as in Japan, began working with the concept of arthroscopic surgery and extremely rapid growth in the field occured. Multiple new pathologic condition were addressed, and new concepts, instrumentation and techinques were introduced. The first instructional course on arthroscopy was given in Philadelphia in 1973. As a measure of the degree of the present interest in this field, in the United States alone during 1980, more than 14 instructional courses in arthroscopy and arthroscopic surgery were given. This incredible level of interest and enthusiasm on the part of orthopaedic surgeons, patients and instrument manufacturers

has propelled the field forward at an explosive rate. This enthusiasm and rapid growth rate, however, are not without danger (*Sprague, 1982*).

At this time, arthroscopic surgery is still in the developing stage. Instrumentaion to facilitate procedures is being developed. New techniques are constantly being revised and information is being gained about the results of the proposed methods of treatment. It is now apparent that with meniscal pathology one is faced with several choices regarding treatment. No longer valid in the dictum "if it is torn, take it out". Now the arthroscopic surgeon, knowing the exact lesion, must choose among partial excision, total excision, repair of the meniscus or even in some instances, leaving it alone. Perhaps the greatest contribution of arthroscopy is the ability to clearly define the extent of pathology before proceeding with definitive treatment (*Jackson, 1983*).