ENTITLEMENT ELIGIBILITY GUIDELINES

CHRONIC PLICA SYNDROME

MPC 01350
ICD-9 717.9

DEFINITION

A plica is a synovial fold, pleat or band, identifiable within the knee joint, and classified into suprapatellar fold, medial fold, and an infrapatellar fold which may lead to signs/symptoms which are identified as Plica Syndrome.

The existence of plica alone is not a "disability" for VAC pension purposes. It may lead, however, to signs and/or symptoms, which are identified as "plica syndrome" (see Clinical Features).

Please note: Entitlement should be granted for a *chronic* condition only. For VAC purposes, "chronic" means that the acute condition has existed for at least 6 months. Signs and symptoms are generally expected to persist despite medical attention, although they may wax and wane over the 6 month period and thereafter.

DIAGNOSTIC STANDARD

Diagnosis by a qualified medical practitioner is required, supported by results of clinical examination. Plica is usually demonstrated through arthroscopic surgery.

ANATOMY AND PHYSIOLOGY

Synovial plicae are folds of embryonic remnants of the synovial membrane. In the fetus, thin synovial membranes divide the knee joint into three compartments: medial, lateral and patellar. In the fifth month of fetal development, the partitions usually degenerate and the knee joint becomes one cavity. Incomplete degeneration of one or more of the membranes can result in the formation of plicae. Most synovial folds contain a considerable amount of elastin and areolar tissue, and are, therefore, extensible and asymptomatic. Many are detected during routine arthroscopic procedures performed for other reasons, and are often an incidental finding of uncertain clinical significance.
Plicae can be found anywhere in the knee joint. The medial suprapatellar plica and the less common lateral suprapatellar plica are the most prominent. Plicae over the medial

femoral condyle are called medial, or shelf, plica. This is the area most susceptible to trauma and subsequent irritation. When the knee is extended, the patella protects the interior aspects of the femoral condyles; however, when the knee is flexed, the medial condyle is more vulnerable. Inflammation of the plica with subsequent thickening from various causes may produce local irritation and erosion on the underlying hyaline cartilage on the condyle.

CLINICAL FEATURES

Careful examination may be required to differentiate symptoms of a thickened plica that becomes inelastic from fibrosis or hyalinization from symptoms of a torn meniscus. A pathological plica produces popping and catching in the knee by snapping across the patella or medial femoral condyle, usually at repeatable positions when the knee is extended or flexed.

Medial plica can be palpated, and some are tender. They are located above the joint line. Palpation of the condyle next to the patella while a person is flexing and extending the knee may produce a snap or click.

Any condition that produces chronic irritation, trauma, or scarring of the fold of synovium may result in thickening of this structure and the production of signs and symptoms.

PENSION CONSIDERATIONS

A. CAUSES AND/OR AGGRAVATION

THE TIMELINES CITED BELOW ARE NOT BINDING. EACH CASE SHOULD BE ADJUDICATED ON THE EVIDENCE PROVIDED AND ITS OWN MERITS.

.

1. Trauma to the knee

Trauma to the knee is one specific trauma in the area of the knee joint, which includes the condyles, or multiple, minor trauma in the area of the condyles.

For trauma to cause or aggravate Plica syndrome, the following should be evident:

Within 24 hours of the trauma, development of tenderness, pain, swelling, discoloration, or altered mobility, or any other pertinent sign or symptom, should occur in the area of the knee joint or the condyles, *and*
Signs/symptoms should recur, either continuously or intermittently, from the time of the trauma to the time of diagnosis.

Multiple trauma, even minor, that involves the condyle can lead to inflammation of the plica with subsequent thickening, and thereby cause local irritation and erosion of the underlying hyaline cartilage on the condyle sufficient to seek medical attention. A direct trauma to the flexed knee can convert an asymptomatic plica (usually the medial and less often the superior) into an enlarged symptomatic plica. Injury to a partially flexed knee may lead to inflammation of the plica. The trauma, whether it be a bump on a hard object such as a dash board injury, or an athletic-related contusion, may produce hemorrhage and synovitis.

2. Inability to obtain appropriate clinical management

B. MEDICAL CONDITIONS WHICH ARE TO BE INCLUDED IN ENTITLEMENT/ASSESSMENT

All intra-articular pathology of the knee and soft tissue disorders in the area of the knee will be included, such as:

- osteoarthritis of knee
- chondromalacia patella
- patello-femoral syndrome
- patello-femoral OA
- loose body of the knee joint
- Baker's cyst
- internal derangement of the knee
- necrosis sequestrum
- recurrent lateral dislocation of patella
- prepatellar bursitis
- suprapatellar bursitis
- medial and lateral collateral ligamentous sprain

C. COMMON MEDICAL CONDITIONS WHICH MAY RESULT IN WHOLE OR IN PART FROM PLICA SYNDROME AND/OR ITS TREATMENT

REFERENCES FOR CHRONIC PLICA SYNDROME

1. Canale, T.S., ed. *Campbell's Operative Orthopedics*. 9th ed. USA: Mosby, 1998.

2. Dee, Roger, et al. *Principles of Orthopaedic Practice*. 2nd ed. Montreal: McGraw-Hill, 1997.

3. Harries, Mark and Clyde Williams, et al, eds. *Oxford Textbook of Sports Medicine*. 2nd ed. Toronto: Oxford University Press, 1998.

4. McCarty, Daniel J. *Arthritis and Allied Conditions.* 11th ed. Philadelphia: Lea & Febriger, 1989.

5. Netter, Frank H. *The CIBA Collection*. Musculoskeletal System, Part II. Vol 8. U.S.A.: CIBA-GEIGY, 1990.