

Ming-Hung Chen<sup>a</sup> MD  
Kuo-Chung Hsiao<sup>a</sup> MD  
Yi-Jen Cheng<sup>a</sup> MD  
Chang-Hwa Tu<sup>a</sup> MD  
Jiann-Shang Jou<sup>b</sup> MD

<sup>a</sup> Department of Orthopedics

<sup>b</sup> Department of Pathology

---

### Key Words

Synovial chondromatosis

Metaplasia

---

## Synovial Chondromatosis of the Knee

---

### ABSTRACT

Synovial chondromatosis is an uncommon disease characterised by the formation of multiple cartilaginous nodules within the synovium. It is a monoarticular synovial proliferative disease in which cartilaginous or osteocartilaginous metaplasia occurs within the synovial membrane of joints, bursae, or tendon sheaths. Routine radiographs may show multiple loose bodies, and studies such as arthrography, magnetic resonance imaging, and arthroscopy may be needed to establish the diagnosis. Synovial chondromatosis is most common in the knee and hip, but almost any joint, bursa, or tendon sheath may be affected. A 19-year-old male suffered from kicking of the left knee for 2 years. A large, smooth mass and many small nodules were found in his left knee. Synovectomy was performed, and degenerative changes of the joint cartilage were found.

(N. Taipei J. Med. 2001; 3:203-206)

---

### INTRODUCTION

Synovial chondromatosis (soc) is an uncommon disorder characterized by the formation of multiple cartilaginous nodules within the synovium. The cause is unknown, but it most likely represents a metaplasia or neoplasia. Synovial chondromatosis may be primary or may occur secondary to other joint disorders such as osteoarthritis, avascular necrosis, osteochondrosis dissecans, and rheumatoid arthritis.<sup>1,2,3</sup> This disorder is almost a monoarticular disorder with chronic progressive change. The most common joints affected are the knee, hip, and elbow. The disorder is twice as common in men as in women and is usually found in adults 20 to 40 years old.<sup>4,5</sup>

Kay et al. thought that primary SOC is a secondary

disorder caused by the shedding of cartilage into the joint. The shed cartilage is taken up into the synovium, which becomes metaplastic. These nodules may become calcified or ossified, and may detach from the synovium to become loose bodies within the joint.<sup>1</sup> In this article, we describe a case of synovial chondromatosis in the knee.

### CASE REPORT

A 19-year-old male patient suffered from kicking of the left knee for 2 years. He could feel a movable mass in his knee joint. He had a history of left knee sprain about 4 years ago. No tenderness or swelling was noted. An X-ray of the left knee was obtained, which showed a large calci-

---

Received: January 11, 2001

Accepted: August 23, 2001

---

Correspondence: Dr. Ming-Hung Chen

Department of Orthopedics, Taipei Municipal Chung-Hsiao Hospital, 87 Tonder Road, Nankang, Taipei 115, Taiwan, R.O.C.

Tel: 886-2-2786-1288 ext 8989; FAX: 886-2-2786-1288 ext 8982

E-mail: q1216203@ms38.hinet.net