An 8-year-old boy presented to the outpatient department with pain and slowly growing swelling on the medial aspect of the right ankle since 7 months. History of trauma while playing was present for which patient had taken alternative medicine. On examination, the swelling was over the anterior aspect of the right medial malleolus. There was restriction of dorsiflexion movement of the foot along with crepitus. All other joints were normal. Hematological investigations were normal. Serum vitamin D and calcium were 26.6 ng/ml (N-30–100 ng/mL) and 9.2 mg/dL (N- 8.6–10.6 mg/dL), respectively. Roentgenogram of the right foot revealed variable size calcific foci in the periarticular region and tibiotalar joint space. The differential diagnosis was synovial chondromatosis and calcified hematoma (in view of trauma). Magnetic resonance imaging (MRI) showed multiple variably sized osseo-cartilaginous masses within the ankle joint space and similar intensity outgrowth from epiphysis of lower end of tibia, suggestive of synovial osteochondromatosis [Figure 1a]. The lesion was excised and sent for histopathology examination.

Grossly, two white bony hard nodular tissue pieces measuring 1.5 × 1 × 0.7 cm and 1.8 × 1.5 × 0.8 cm were received [Figure 1b]. Microscopy showed circumscribed nodules of central cartilaginous areas with endochondral ossification at the periphery [Figure 1c and d]. Focally, the surface showed a layer of fibrotic synovial membrane and attenuated synovial cells. There was no increased cellularity or mitosis. Diagnosis was consistent with synovial chondromatosis.

Synovial chondromatosis is a benign cartilaginous metaplasia of the synovium. It is rare and characterized by the formation of multiple cartilaginous nodules in the synovial membrane of the joint, tendon sheath, and bursae resulting in intra-articular loose bodies. The knee joint is most commonly involved, followed by the hip, shoulder, and elbow. The involvement of the ankle joint is rare and sparsely documented. The main symptoms are pain, swelling, and limitation of movements in the affected joint. It usually occurs in men between the third and fifth decades and is extremely rare in children. Trauma, infections, and fibroblast growth factors-9 (FGF-9) have been postulated in the pathogenesis. Synovial chondromatosis occurs in two forms. Primary form is without identifiable pathology and results from metaplasia of the synovium, which produces multiple loose bodies within the joint. They progress to calcify loose bodies, which are of the same size. It is progressive leading to degenerative arthritis, with the possibility of recurrence after the treatment. Secondary form is much more common and is associated with trauma, slowly progressive degenerative joint disease, inflammation, or neurologic disease, which causes shedding of bits of articular cartilage resulting in loose bodies in the joint. They may or may not calcify and are of different sizes, few in number, and tend not to recur after excision. Treatment of synovial chondromatosis is synovectomy with removal of the loose bodies. The recurrence rate ranges from 3.2% to 22.2%; hence, follow-up is necessary. This case of synovial chondromatosis is presented for its rarity in children as well as location.

Declaration of patient consent
The authors certify that appropriate patient consent was obtained.

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Conflicts of interest
There are no conflicts of interest.
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