

MRI : 1 1

2

Trevor

(dysplasia epiphysealis hemimel - ica)

4

MRI

Dysplasia epiphysealis hemimelica(DEH)

(Fig. 1).

(1).

DEH

4

가

가

3

(2 - 4).

5 cm

가

, MRI

5 cm

(Fig. 2).

. MRI

(osteochondroma)

(Fig. 3).

(5, 6).

DEH MRI

DEH가

(5),

DEH

DEH

MRI

(1).

1926

가 1950

Trevor

tarso - epiphysial acla -

sis

Trevor

가

DEH

1956

Fairbank

(4, 7).

8

가

(hemimelic)

, MRI

1

2

2002 3 25

2002 6 10

(7),

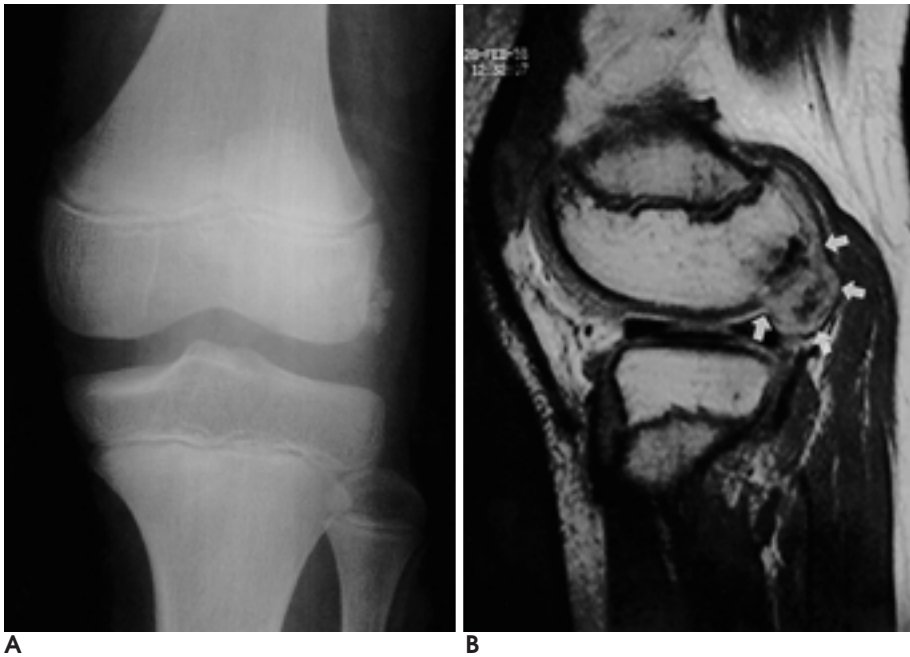


Fig. 1. Dysplasia epiphysealis hemimelica in a 8-year-old boy presenting with lateral knee swelling.

A. Anteroposterior radiograph shows cluster of calcifications at the lateral aspect of the lateral condyle of distal femur.

B. Sagittal proton density (1500/20) image shows the cartilaginous overgrowth (arrows) of the lateral femoral condyle with supernumerary ossification centers within it.



Fig. 2. Recurred dysplasia epiphysealis hemimelica in the same patient 4 years after excision of the initial lesion.

A. Lateral radiograph shows large lobular calcified mass protruding into popliteal area.

B, C. Sagittal T1W (543/12) and T2W (4064/100) images more clearly show cartilaginous origin of the mass. Note the contiguity between the mass (black arrows) and articular cartilage of the distal femoral epiphysis (white arrows). A popliteal cyst is also present (asterisk).

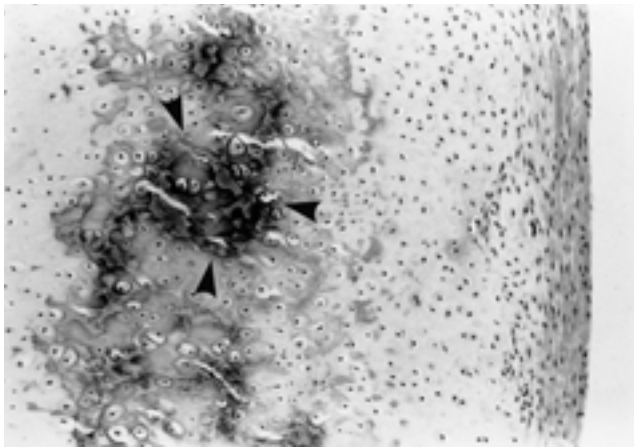


Fig. 3. The cartilaginous cap shows mature hyaline cartilage with calcifications (arrowheads). (H & E stain, $\times 100$)

가 , , , ,
(8). , , , ,
(exostosis)
2 - 14
3 (2 - 4).
가 가 , ,
(cap)
가 가 , ,
(hyaline)
가 , ,
가 DEH
(5)
(tumoral calcinosis),
가 , ,
MRI

가 T1
, T2
T1 T2
(5, 6).
(9).
(7, 10), 가
가 가
가
4
MRI
가
(accessory ossification center)
MRI가

1. Fairbank TJ. Dysplasia epiphysealis hemimelica (tarso-epiphyseal aclasis). *J Bone Joint Surg Br* 1966;38:237-257
2. Azous EM, Slomic AM, Marton D, Rigault P, Finidori G. The variable manifestation of dysplasia epiphysealis hemimelica. *Pediatr Radiol* 1986;15:44-49
3. Peduto AJ, Frawley KJ, Bellemore MC, Kuo RS, Foster SL, Onikul E. MR imaging of dysplasia epiphysealis hemimelica: Bony and soft-tissue abnormalities. *AJR Am J Roentgenol* 1999;172:819-823
4. Kuo RS, Bellemore MC, Monsell FP, et al. Dysplasia epiphysealis hemimelica: clinical features and management. *J Pediatr Orthop* 1998;18:543-548
5. Iwasawa T, Aida N, Kobayashi S, Nishimura G. MRI findings of dysplasia epiphysealis hemimelica: case report. *Pediatr Radiol* 1996;26:65-67
6. Lang IM, Azous EM. MRI appearances of dysplasia epiphysealis hemimelica of the knee. *Skeletal Radiol* 1997;26:226-229
7. Murphey MD, Choi JJ, Kransdorff MJ, Flemming DJ, Gannon FH. Imaging of osteochondroma: variants and complications with radiologic-pathologic correlation. *RadioGraphics* 2000;20:1407-1434
8. Gerscovich EO, Greenspan A. Computed tomography in the diagnosis of dysplasia epiphysealis hemimelica. *J Can Assoc Radiol* 1989;40:313-315
9. Rao SB, Roy DR. Dysplasia epiphysealis hemimelica: upper limb involvement with associated osteochondroma. *Clin Orthop* 1994;307:103-109
10. Connor JM, Horan FT, Beighton P. Dysplasia epiphysealis hemimelica: a clinical and genetic study. *J Bone Joint Surg Br* 1983;65:350-354

MRI Findings of Dysplasia Epiphysealis Hemimelica: A Case Report¹

Young Lan Seo, M.D., Eun Sook Nam, M.D.²

¹Department of Radiology, Hallym University College of Medicine

²Department of Pathology, Hallym University College of Medicine

Dysplasia epiphysealis hemimelica, also known as Trevor's disease, is a rare disorder characterized by osteochondral overgrowth of one or more epiphyses and usually affecting the lower limbs. It typically presents in childhood, with painless swelling or deformity around the involved joint. We report a case of recurrent dysplasia epiphysealis hemimelica which presented as a large popliteal mass four years after excision of the initial lesion.

Index words : Bones, osteochondrodysplasias
Bones, MR

Address reprint requests to : Young Lan Seo, M.D., Department of Radiology, Hallym University College of Medicine,
Kangdong Sacred Heart Hospital, 445, Gil-dong, Kangdong-gu, Seoul, 134-701 Korea.
Tel. 82-2-2224-2312 Fax. 82-2-488-0114