

1

2

3

:

:

13

2

15

T1

T2

,

, 2

:

15

(buttock)

(thigh)가

6

1

), 2

가

(intermuscular)

8

,

(intramuscular)

가 6

(

1

, 1

).

10 (67 ,

2

)

14

(93 ,

2

)

가

15

T1

T2

가

,

15

(star shape)

(linear)

(band shape)

:

가

)

(locally aggressive),

(1).

(limb girdle)

가

(2).

(fascia)

(superficial or fascial fibromatosis)

(musculoaponeurosis)

(deep or musculoaponeurotic fibromatosis)

()

(extra- abdominal fibro-

matosis, extraabdominal desmoid),

(abdominal fi-

bromatosis, abdominal desmoid),

(intraabdomi-

nal fibromatosis, intraabdominal desmoid)

(3).

15 (

2

13

2

15

가 5

가 8

4

66

25

MR

spectro 20000

(Gold star, Seoul, Korea) Signa 1.5 T (GE Medical Systems,

Milwaukee, U.S.A.), Gyroscan 0.5 T (Philips, Eindhoven,

Netherlands)

T1 T2

14

Gd-DTPA

(low),

(iso),

(intermediate),

(high signal intensity)

1

2

3

1999 7 7

1999 9 13

가, T2

T1 T2

가

가

, 2

(elliptical)

(round)

T2

15 14

1 T2

15

(star

shape),

(linear)

(band)

Gadolinium-DTPA

14 13

T1

가

2

2

250%

(buttock)가 6 (2

) 가 , 가 2 , 3 (1

), (back), , 가 1 (Table

1). (intermuscular) 8 , (intramuscular)

가 6 (1 , 1

).

15 10 (67%,

2)

5 (33%)

15 14 (93%, 2)

가

(Fig. 1) 1 (7%)

(Fig.

2). 15 T1 Weiss (3).

(3).

Enzinger

Kransdorf (3)

Table 1. Summary of 13 Patients

| No | Age/Sex | Sites | T1WI | T2WI | Gd | Infiltration | Location | Shape |
|----|---------|--------------|---------------|-------|----|--------------|---------------|------------|
| 1 | 42/F | Thigh | Mixed | Mixed | + | + | Intermuscular | Round |
| | | (iso to low) | (high to low) | | | | | |
| 2 | 3/F | Upper ex | Mixed | Mixed | + | + | Intermuscular | Round |
| | | (iso to low) | (high to low) | | | | | |
| 3 | 9/M | Mediastinum | Mixed | | + | + | | Elliptical |
| | | | (iso to low) | | | | | |
| 4 | 22/F | Buttock(Rt) | Mixed | Mixed | + | - | Intermuscular | Round |
| | | (iso to low) | (high to low) | | | | | |
| 5 | 20/F | Calf(Rt)* | Mixed | Mixed | + | + | Intramuscular | Elliptical |
| | | (iso to low) | (iso to low) | | | | | |
| 6 | 7/M | Buttock(Rt) | Mixed | Mixed | + | + | Intramuscular | Round |
| | | (iso to low) | (high to low) | | | | | |
| 7 | 42/F | Shoulder(Rt) | Mixed | Mixed | + | + | Intramuscular | Round |
| | | (iso to low) | (high to low) | | | | | |
| 8 | 4/M | Back | Mixed | Mixed | | + | Intermuscular | Elliptical |
| | | (iso to low) | (high to low) | | | | | |
| 9 | 18/M | Calf(Rt) | Mixed | Mixed | + | + | Intramuscular | Elliptical |
| | | (iso to low) | (iso to low) | | | | | |
| 10 | 26/F | Buttock(Rt) | Mixed | Mixed | + | + | Intramuscular | Elliptical |
| | | (iso to low) | (high to low) | | | | | |
| 11 | 66/F | Buttock(Rt)* | Mixed | Mixed | + | + | Intermuscular | Elliptical |
| | | (iso to low) | (high to low) | | | | | |
| 12 | 22/F | Thigh | Mixed | Mixed | + | + | Intermuscular | Elliptical |
| | | (iso to low) | (high to iso) | | | | | |
| 13 | 24/M | Buttock(Lt) | Mixed | Mixed | + | + | Intermuscular | Elliptical |
| | | (iso to low) | (iso to low) | | | | | |

T1WI : T1-weighted image T2WI : T2-weighted image

Gd : gadolinium DTPA * : Patient who recurred.

40
가
8
25
(3).
13
(elongated)
가
Hartman (6)
87%
15 14 (93%)
가
Liu (2)
MRI
(7).
가 5 ,
(4).
가
(2). O keefe (4)
T1
가 T1
T2
T1
(5).
(1).
(8) 12
MRI
가
T1
T2
11
, T2
Kransdorf (3) 14
10



A



B



C



D

Fig. 1. 26-year-old woman, Intramuscular fibromatosis in buttock
T1-weighted image(A, SE 600/11) shows low to intermediate signal intensity mass that changed into high signal intensity on T2-weighted image(B, FSE 3500/102). On Gd-DTPA enhanced image(C), strong enhancement is noted. There shows star-shaped low signal intensity area within the mass that does not show enhancement. Focal infiltration into adjacent muscle is noted(arrows). The mass is elongated along the long axis of the body(D).

(3) 86% . Kransdorf (curvilinear)

가 , T1, T2

T2 T1

(2)

가 가

,

,

,

- onous multicentric desmoid tumors (aggressive fibromatosis) of the extremities. *Skeletal Radiol* 1988;17:16-19
2. Liu P, Thorner P. MRI of fibromatosis: with pathologic correlation. *Pediatr Radiol* 1992;22:587-589
 3. Kransdorf MJ, Jelinek JS, Moser RP et al. Magnetic resonance appearance of fibromatosis. a report of 14 cases and review of the literature. *Skeletal Radiol* 1990;19:495-499
 4. O'Keefe F, Kim EE, Wallace S. Magnetic resonance imaging in aggressive fibromatosis. *Clin Radiol* 1990;42:170-173
 5. Hawnaur JM, Jenkins JPR, Isherwood I. Magnetic resonance imaging of musculoaponeurotic fibromatosis. *Skeletal Radiol* 1990;19:509-514
 6. Hartman TE, Berquist TH, Fetsch JF. MR imaging of extraabdominal desmoids : differentiation from other neoplasms. *AJR* 1992; 158:581-585
 7. Crim JR, Seeger LL, Yao L, Chandnani V, Eckardt JJ. Diagnosis of soft tissue masses with MR imaging: can benign masses be differentiated from malignant ones?. *Radiology* 1992;185:581-586
 8. : 1994; 31(6):1167-1172
 9. Moulton JS, Blebea JS, Dunco DM, Braley SE, Bisset III GS, Emery KH. MR imaging of Soft-tissue masses: diagnostic efficacy and value of distinguishing between benign and malignant lesions. *AJR* 1995;164:1191-1199

1. Sundaram M, F.R.C.R., Duffrin H, McGuire MH, Vas W. Synchron-

MR Findings of Extraabdominal Fibromatosis¹

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Purpose : To evaluate the MR findings of extra-abdominal fibromatosis and the role of MRI in primary diagnosis

Materials and Methods : Fifteen cases in of histologically proven extra-abdominal fibromatosis in 13 patients were retrospectively reviewed. T1-weighted and T2-weighted images were obtained in axial, coronal and sagittal planes. Gd-enhancement was performed in 14 cases, and dynamic enhancement studies in two. All lesions were evaluated for mass shape and margin definition.

Results : Among the 15 cases, tumors of the buttock accounted for five, and tumor of the thigh for two. In eight cases tumors were intermuscular and in six cases were intramuscular. In ten cases (67 %) the mass extended along the long axis of the body and in 14 of 15 cases (93 %) focal infiltration of adjacent structures was visible. The signal intensity of the lesion was in all cases inhomogeneous on both T1 and T2 weighted images. As seen on Gd-DTPA enhanced scans, the masses were inhomogeneously enhanced. In all cases MRI revealed star-shaped linear strands or a band-like low signal area in the mass. These features were not enhanced and were arranged along the long axis of the mass.

Conclusion : MR findings of extra-abdominal fibromatosis were relatively characteristic and helpful for primary diagnosis of the condition.

Index words : Soft tissues, fibroma

Soft tissues, neoplasms

Soft tissues, MR

Fibromatosis

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