
:	8	.
:	1994 5	1999 3 8
,	7.9	, 7 , 1 .
,		, , 가 .
	78.4	.
:	1	2 , 2 , 1 ,
3		2
3	,	2 1
.		2 가 1 , 1
		. 2 3
:	가	,
:	,	

15
1,4)

0.2% 가⁴⁾,
2 가 1,4,5)
8) 1,4,5)

가

, 가

1,4,5)

, en bloc

1)

1994 5 1999 3
8

1

2 ,

2 ,

3

1994 5 1999 3
8

1 ,

2 (Fig. 1)

3 (Fig. 2)

가

7.9

2

5 , 가 3 (: 1 ~ 16.6)

7 , 1 , 8

2 가 1

1

6 7

2

8

, 5

1

가

(zonal architecture)가

1

(multiloculated radiolucent lesion)

, 7

(eccentric intracortical destruc-

tion) 가

(Fig. 3). 2

Table 1. Case summary

No	Age (yrs+mos)	Sex	Site	Initial treatment	Recurrence	Subsequent treatment	Remark
1	4+4	M	Tibia	EPR* with EF [†]	(-)		Pathologic fracture (2x) [‡]
2	16+4	F	Tibia	Observation	(-)		
3	1+9	M	Tibia	EPR with B/G [§]	(-)		Growing mass
4	11+5	M	Tibia	Curettage with B/G	(+)	Observation	Initially diagnosed as FD [¶]
5	4+4	F	Fibula	SPR [#]	(+)	Observation	Growing mass
6	1+3	M	Tibia	Curettage with B/G	(+)	EPR with EF	
7	16+5	F	Tibia	EPR	(-)		
8	1+3	M	Tibia	Observation	(-)		

* EPR: Extrapariosteal resection

‡2X: Two times

¶FD: Fibrous dysplasia

†EF: External fixation

§B/G: Bone graft

#SPR: Subperiosteal resection

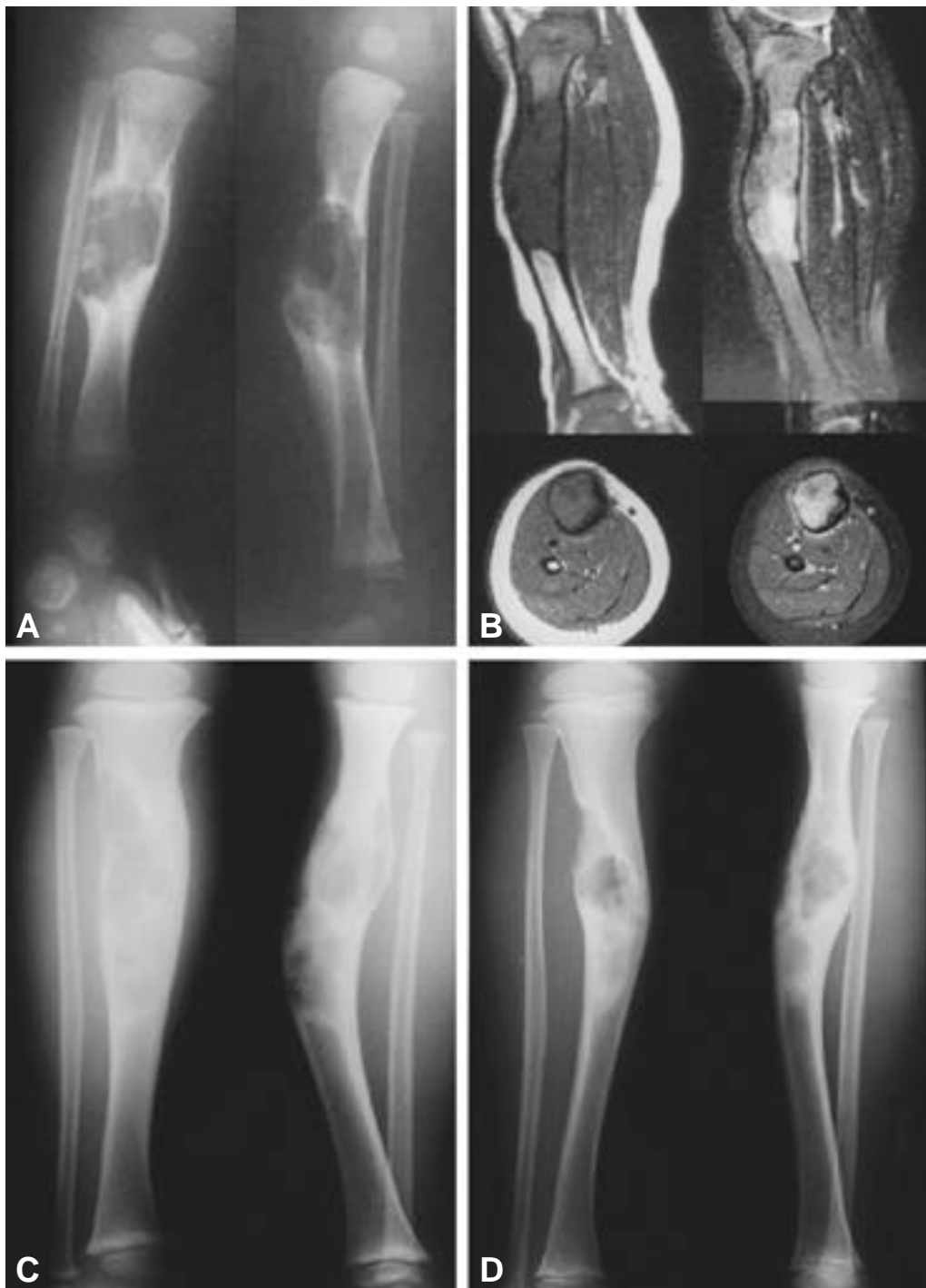


Fig. 1. A case of observation (A) The patient, 1 month-old boy, visited us showing the expansile osteolytic mass at tibia diaphysis. (B) MRI demonstrated a huge mass involving proximal diaphysis of tibia. (C) At 2 years old, a new lesion involving mid-diaphysis was demonstrated. Anterior bowing of tibia was shown. (D) At six years old, the mid-diaphyseal mass was healed. But the proximal lesion showed persistent osteolysis with sclerotic margin. The size of mass decreased and the bowing deformity improved.

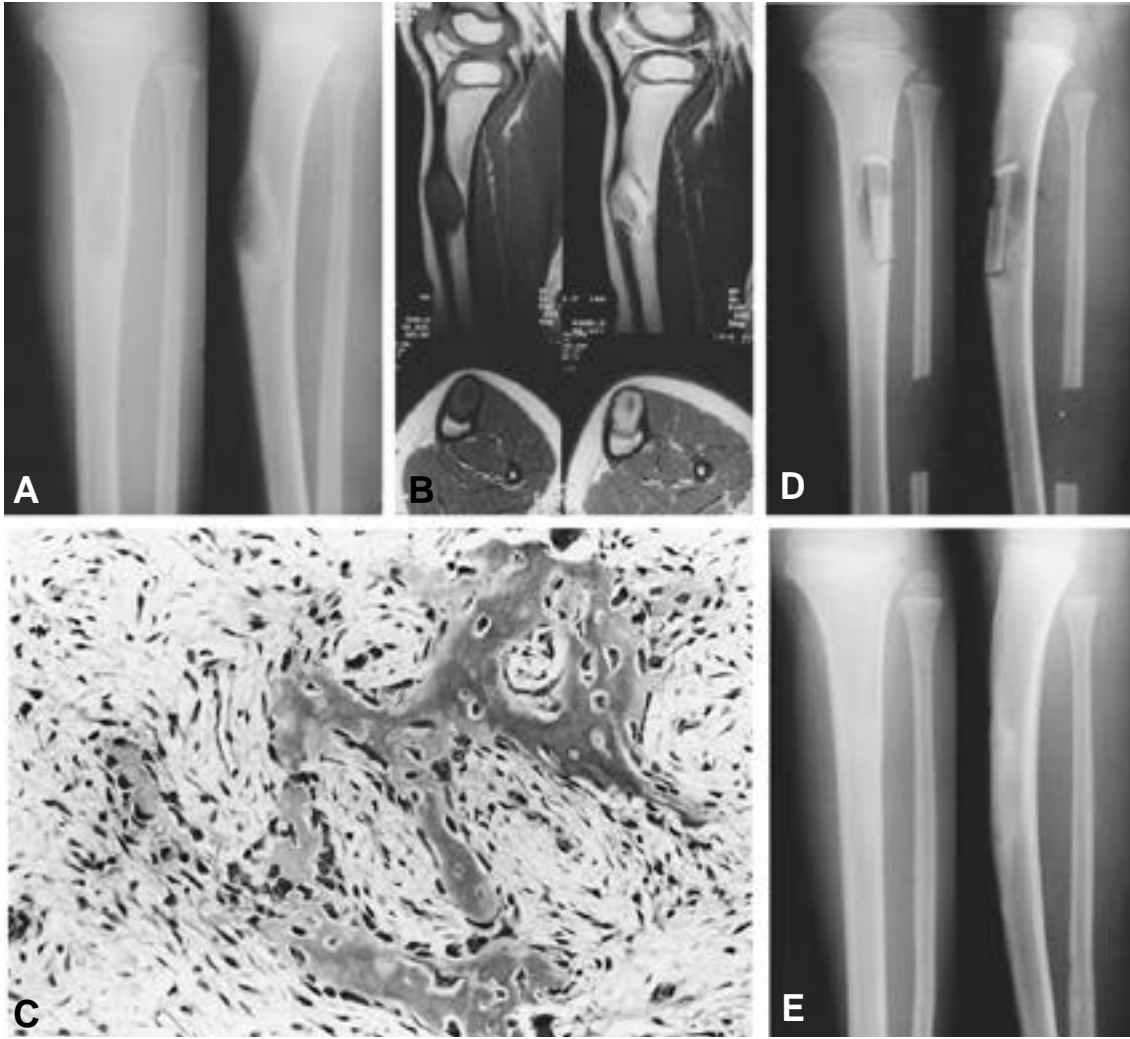


Fig. 2. A case of extraperiosteal resection (A) The patient, 4 year-old boy, visited us showing a growing mass at lower leg for 3 years. Eccentric intracortical osteolytic lesion having sclerotic margin was demonstrated at proximal one third of tibia. (B) T1 weighted image demonstrated the intracortical mass with low SI. And T2 weighted image showed high SI. The mass had the continuity to anterior cortex. (C) In microscopic finding, bony spicule or woven bone rimmed with osteoblast in spindle-shaped fibrous background. (D) Extraperiosteal resection with strut bone graft was performed because of sudden expansion of mass. (E) In 2 years and 8 months after operation, x-ray demonstrated the evidence of union and no finding of recurrence.

1 2 4 4
 1 2 4
 2 , 1 ,
 4 . 2 1 (long bone)
 0.2%



Fig. 3. A case of subperiosteal resection (A) The patient, 5 year-old girl, visited us showing the expansile osteolytic mass at fibular diaphysis. There was the evidence of fracture. (B) After 3 months ' casting, the fracture was healed, but the osteolytic lesion remained. (C,D) At 7 years old, the osteolytic lesion was ballooned rapidly. (E) Mass excision and periosteal repair was performed. (F) Postoperative 7 months, new bone formation was shown along the periosteum. But the osteolytic lesion arising from the resection margin was detected, which is indicated by solid arrow. (G) Postoperative 2 years, the recurred lesion persisted. She is under observation.

가 ,
 1982 1⁷⁾,
 1986 3¹²⁾, 1995 10⁴⁾,
 1997 1⁶⁾, 1990

2
 Campanacci

1), 15 가
 1), 8 가
 , 5 , 8
 (multi

loculated radiolucent lesion)
 (eccentric intracortical destruction)가
 1,4,5,10)

(bone spicule) 가
 가
 (woven bone) 가
 (lamellar bone)
 (zonal architecture)가¹⁶⁾(Fig. 2-C).

가
 (zonal architecture)

Campbell²⁾
 , Kempson⁸⁾ 가
 () , Campan-
 acci¹⁾ “
 ”
 , Kempson⁸⁾
 (bone
 spicule)

가
 3),
 (epithelioid component)
 13,14)

가

가 가

Campanacci¹⁾ Nakashima⁹⁾
 64 ~ 100%

¹¹⁾, Campanacci 10
 , Wang¹⁵⁾ 15

2

Kempson⁸⁾

X-

1).

가
가
가
Campanacci¹⁾ 10
Hazelbag¹⁰⁾ 10 32
4 Springfield¹⁴⁾ 10
10 6
(epithelioid
component) 가 , 가
histochemical study Cytokeratin
8,12,13)

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Treatment of Ossifying Fibroma

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Purpose: We reviewed the outcome of treatment of ossifying fibroma involving long bones.

Materials and methods: Eight patients who enrolled at our hospital for ossifying fibroma from 1994 to 1999 were selected for this study. Mean age was 7.9 years old. Five were male and three female. Seven involved tibia and one fibula. All cases were diagnosed by biopsy. The initial treatment was conservative and the followings were operative indications; (1) repeated fracture, (2) suddenly growing mass, (3) severe bowing deformity, (4) pseudoarthrosis. We assessed the recurrence by x-ray follow-up.

Results: As initial treatment, curettage was performed in 2 patients, observation in 2 subperiosteal resection in one and extraperiosteal resection in 3 patients. Two patients who were observed and 3 patients who received extraperiosteal resection did not suffer recurrence. Two patients who received curettage and one patient who received subperiosteal resection had recurrence. The second treatment was performed in 3 patients. The one case of curettage received extraperiosteal resection. The other was in observation. The case of subperiosteal resection was in observation, too. There were no recurrence and aggravation at follow-up.

Conclusion: Ossifying fibroma should to be treated by conservative method. If operation is indicated, extraperiosteal resection could reduce the recurrence.

Key Words: Ossifying fibroma, Extraperiosteal resection

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