

and the tibial tubercle with nearby branches of the anterior tibial recurrent artery suggest a predisposing factor for the development of compartment syndrome. So, compartment syndrome should be added to the list of possible complications of this type of fracture.

Key Words: Compartment syndrome, Avulsion fracture, Tibial tubercle.

70mmHg .

12

가 , 0.4 17 1 (first web space) (Good+)가 , 가가 , , , .(Fig 1)

Osgood-Schlatter

가 Osgood-Schlatter 8).

2. 13 9

III A

4 , 1

가 8).

29mmHg 80mmHg . 5

3

1. 15 8

3. 15 3

II A 9

Ogden III A 6 (cannulated screw) 가 50mmHg 80mmHg . 23

가 45mmHg 13

5

.(Fig 2)

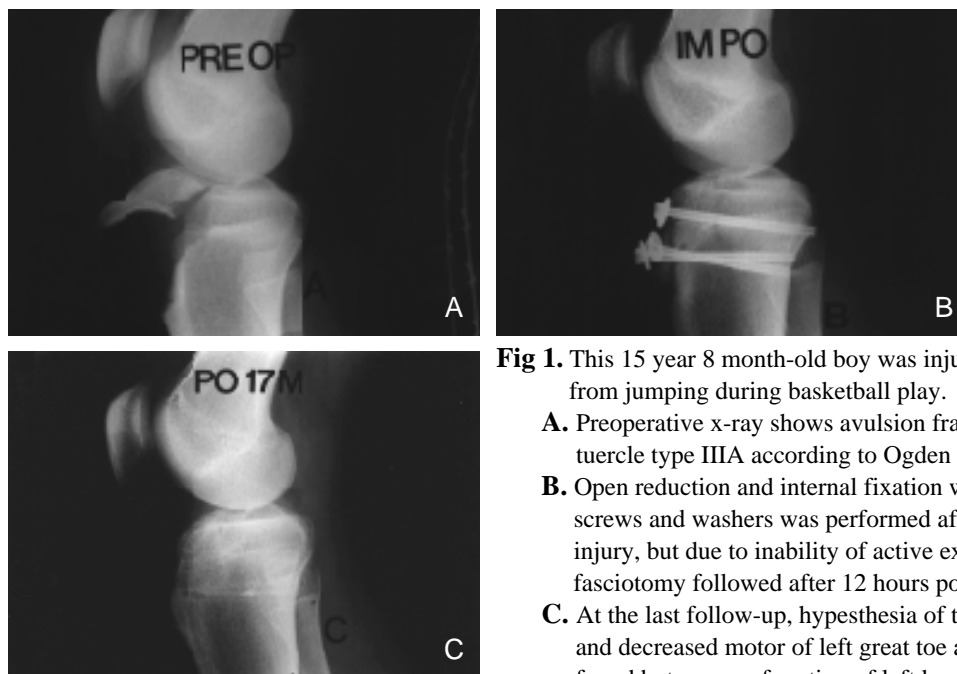
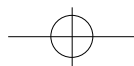


Fig 1. This 15 year 8 month-old boy was injured his left knee from jumping during basketball play.

- A.** Preoperative x-ray shows avulsion fracture of tibial tubercle type IIIA according to Ogden 's classification.
- B.** Open reduction and internal fixation with 3 cannulated screws and washers was performed after 6 hours from injury, but due to inability of active extension of toes, fasciotomy followed after 12 hours postoperatively.
- C.** At the last follow-up, hypesthesia of the first web space and decreased motor of left great toe and ankle was found but, range of motion of left knee was normal and solid union was seen on the radiographs.

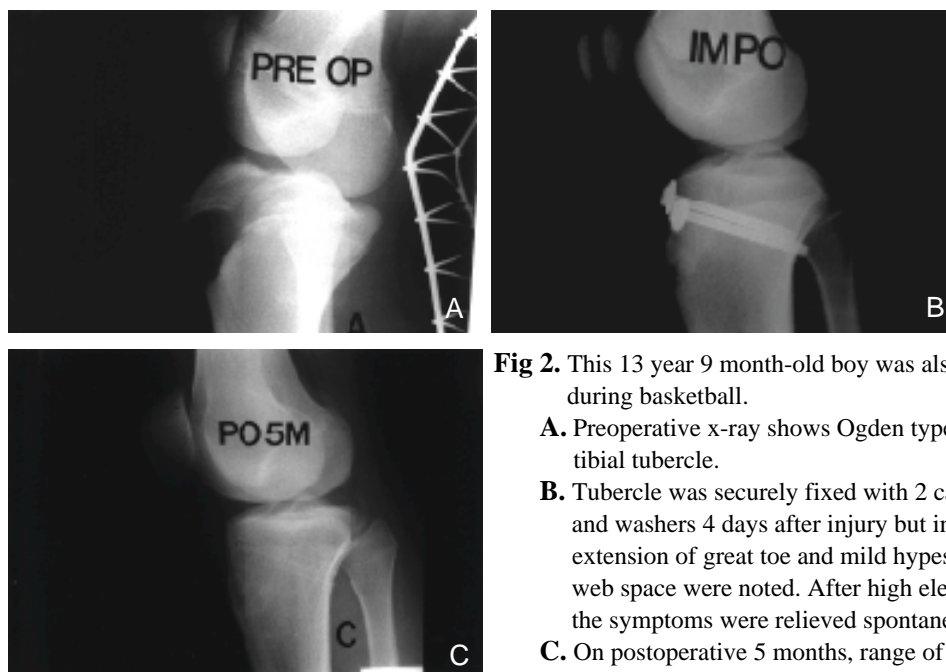


Fig 2. This 13 year 9 month-old boy was also injured left knee during basketball.

- A.** Preoperative x-ray shows Ogden type IIIA fracture of tibial tubercle.
- B.** Tubercle was securely fixed with 2 cannulated screws and washers 4 days after injury but inability of active extension of great toe and mild hypesthesia on the first web space were noted. After high elevation of the leg, the symptoms were relieved spontaneously.
- C.** On postoperative 5 months, range of motion of left knee and motor of great toe extensor were normal and the screws were removed after solid union was confirmed on the radiographs.

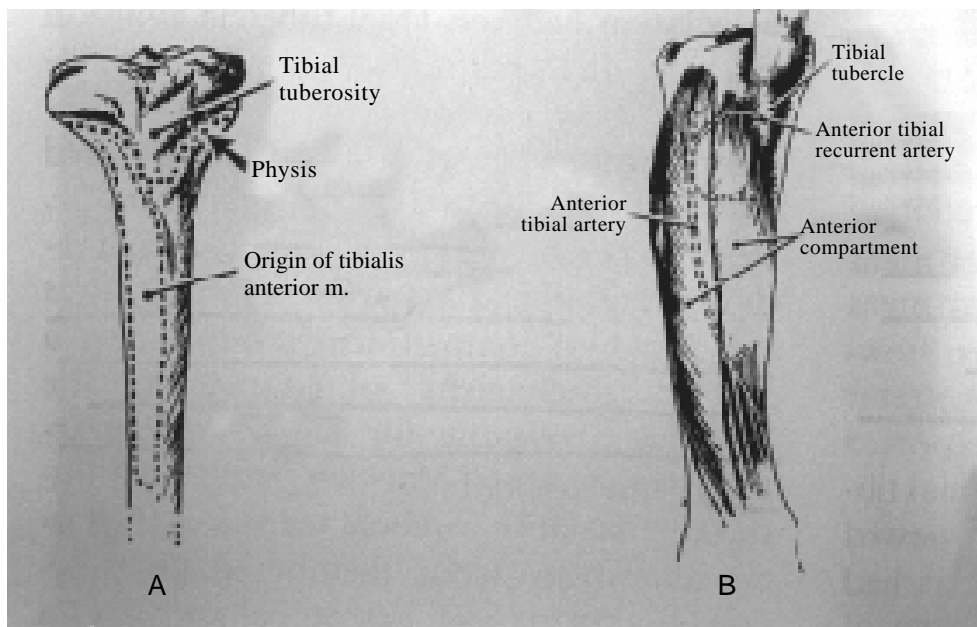


Fig 3-A. Osteology of the immature right tibia illustrates the origin of the tibialis anterior muscles and the position of the proximal tibial physis.

B. Anterolateral view of right tibia illustrates the anterior compartment musculature relationship to the tibial tubercle. The anterior tibial recurrent artery is shown with branches near the tibial tubercle.

가

(staple), (screw),
(tension band wire) 10)

Ogden¹⁰⁾

3 2 , , 가

(subtype) , Watson-Jones

I

A 가 , B 가 1986

Polakoff¹³⁾가 12 2

가 II

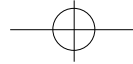
가 III

A , B , III

1), 5) Hauser 15)

A, B

가



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(血管床, vascular bed) 가 .
(recurrent branch of anterior tibial artery)

(Fig 3)

Whitesides 가 10
30mmHg 가
가
Mubarak 30mmHg

7) Masten 45mmHg
가
가
가 25mmHg

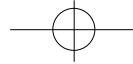
가 30mmHg 가 가

3 , 13
9 15 8 14 10
. Ogden IIIA 2 , IIA 1 .

가 .
 , ,

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