

CALCANEAL APOPHYSITIS (SEVER'S DISEASE) - A CASE STUDY

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ABSTRACT- Calcaneal apophysitis (Sever's disease) is the most common cause of heel pain in young athletes. It is a painful inflammation of the heel's calcaneal apophysis growth plate, believed to be caused by repetitive microtrauma from the pull of the Achilles tendon on the apophysis. Patients with calcaneal apophysitis may have activity-related pain in the back part of the heel. Sixty percent of patients report pain in both heels.

KEY WORDS- Heel, Achilles Tendon, Apophysis, Athletes, Muscles.

CASE STUDY OF MASTER X

Master X 12 year old male presented with history of pain in the back part of the heel since one week. Master X had a past history of pain in both heels last year. There was no family history of Calcaneal Apophysitis. The surgeon will also examine the child's foot and leg. x-ray appearance usually shows the apophysis divided into multiple parts are often used to evaluate the condition.

INCIDENCE:

Found more in childrens age between 6 and 17 years old. The incidence of Sever disease is higher in boys than in girls.

ETIOLOGY-

BOOK PICTURE	PATIENT'S PICTURE
Sports with running and jumping	Present
Poor footwear	Present
Tight lower leg muscles, primarily the Achilles tendon and the calf	Not known
Normal growth pattern when the bones often grow faster than the muscles and tendons	Not known

CLINICAL MANIFESTATIONS:

BOOK PICTURE	PATIENT'S PICTURE
Heel pain on one or both sides	Patient having the history of pain in both heels
Heel pain with running, jumping and other sport-related activities	He having pain during sports activity
Limping	Not known
Pain elicited when the heel is squeezed	Intensity of pain is increased when heel is squeezed

DIAGNOSTIC EVALUATION

BOOK PICTURE	PATIENT'S PICTURE
X-RAY	The x-ray appearance usually shows the apophysis to be divided into multiple parts. Sometimes a series of small fragments is noted
MRI	May show oedematous changes within the calcaneal apophysis, possibly extending into the adjacent calcaneal tuberosity

MANAGEMENT FOR MASTER X

Tab. diclofenac sodium 50 mg Tid

Inj. Pethethidine 50mg Bd

PREVENTIONS

The chances of a child developing heel pain can be reduced by:

- Avoiding obesity
- Choosing well-constructed, supportive shoes that are appropriate for the child's activity
- Avoiding or limiting wearing of cleated athletic shoes
- Avoiding activity beyond a child's ability.

NURSING INTERVENTIONS

- Heel pain related to injury as evidenced by patient verbalization.
 - A. Comfortable position is provided
 - B. Heel is rested over pillow
 - C. Psychological support is provided
 - D. Medicines are provided in time.
- Impaired family process related to child with a physical disability as evidenced by mother verbalization.
 - A. Education is provided to the mother regarding the condition
 - B. Family is prepared for the long term care
 - C. Pictures of other children were shown who are recovered from the condition.
- Knowledge deficit related to treatment as evidenced by patient mother verbalization.
 - A. Medicine with dose, route and action is taught
 - B. Medicines should be given in time
 - C. Home management is taught
 - D. Regular follow -up is needed
 - E. Information should be provided to mother that child should limit the activity.

SUMMARY

Master X was cooperative with health personnel. Although his symptoms were well responding to the treatment. He did not develop further complications during the hospital stay.

CONCLUSION

Prevention of disease is of fundamental importance. When prevention of disease is not possible, prevention of further complication is a priority. The nurse should include family members and other support systems when planning a patient care.

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