What is Osgood-Schlatter disorder?
It is a short-lived problem of the knee in which a painful bony lump develops during a period of a growth spurt, often associated with considerable physical activity. The area of bone affected is the tibial tubercle, which is a prominence just below the knee joint. It is a growing centre for this long bone of the lower leg.

This common disorder was described independently by two surgeons in 1903, namely Robert Osgood of Boston, US, and Carl Schlatter of Zurich, Switzerland.

What are the signs and symptoms?
• A swollen, warm and tender bump below the kneecap
• Pain in this area during and after activity
• Pain aggravated in sports involving kicking, running and jumping such as basketball, football and gymnastics
• Pain reproduced by attempts to straighten the bent knee against force, such as jumping or weight-lifting
• Pain aggravated by kneeling down and going up and down stairs
• It usually affects one knee but about one in three patients will have both knees affected.

Who gets Osgood-Schlatter disorder?
It is a feature of early adolescents aged 10-18, being most common in the 11-14 age group. It is uncommon after age 16. It affects both sexes but is three times more common in boys compared with girls.

What is the cause?
There is usually no history of preceding injury such as a fall or bicycle accident. It is caused by the stress of constant traction on the immature tibial tubercle by the patellar tendon from sporting activity and running or jogging. This friction effect causes inflammation.

What increases the risk for the disorder?
• Over-enthusiastic action routines, for example, running, jogging and jumping
• Being male and aged 11-16
• Being overweight
• Rapid bone growth

What is the usual outcome?
It is a temporary self-limiting condition that usually heals in 6-18 months, with an average of 12 months. Sometimes recovery may be delayed, especially in those who continue sporting activity, until bone growth ceases. The end result is a prominent painless tubercle.

What is the management?
The best treatment is rest from sporting activity to prevent pain and allow healing. Apart from running other activities such as cycling and football should be restricted. Any activity that induces pain should be avoided during the healing phase.

For acute pain use icepacks and basic analgesics. A cushioned kneepad is helpful if kneeling hurts. Warm compresses or heat packs can provide relief after the acute phase settles.

Supervised quadriceps exercises involving stretching can promote healing. Avoid cortisone injections and immobilisation in plaster casts.

Rarely a small operation is necessary to remove an irritating piece of bone that has not healed.

What is the diagnosis usually obvious but can be confirmed by an X-ray which shows a gap in the tubercle.

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