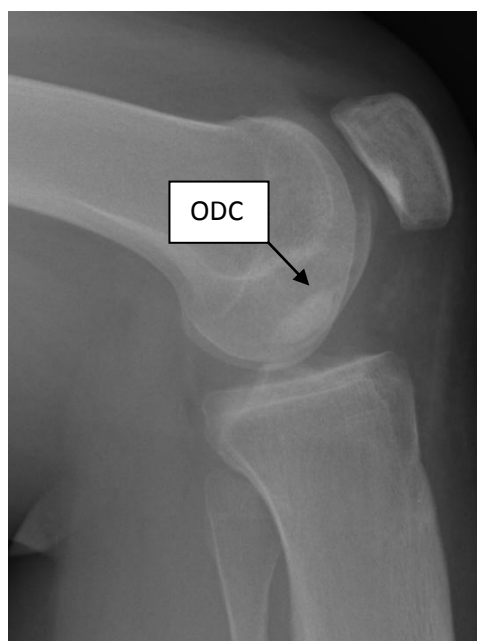


Osteochondritis Dessicans (OCD)

Osteochondritis dessicans can affect any age but is seen commonest in 5 to 15 years olds. It can affect any joint but 75% of cases affect the thigh bone (femur) within the knee. It tends to run in families.

Children complain of pain within the knee especially when they exercise. This may be anywhere within the knee. The knee will tend to swell after exercise. Other symptoms include “locking” where the knee gets stuck and cannot be straightened and occasionally “loose bodies” can be felt within the knee and pushed around under the skin. Rarely OCD is first diagnosed on an X-ray taken for other reasons when the child has no symptoms at all.

OCD is an abnormality within the thigh bone under the articular cartilage of the knee joint. A blockage in the blood supply to a part of the thigh bone causes that piece of bone to die. The dead piece of bone becomes soft and can be squashed. The body tries to heal the dead piece of bone by growing new blood vessels into it. Once the dead bone has a new blood supply it can heal itself, get stronger and stop any more damage.



Problems

- The articular cartilage over the dead bone can crack. This allows the normal fluid that helps lubricate the knee into the dead bone. This fluid can interfere with the healing process.
- The dead bone can move under the articular cartilage. This causes pain and stops new blood vessels growing in.
- Cracks in the articular cartilage over the dead bone can grow. The dead bone can then flap out into the joint catching in the joint and causing it the “lock”.
- The dead bone and articular cartilage over it can become totally separated from the thigh bone forming a “loose body”.

Investigations

OCD can be seen on x-rays. The important piece of information for treatment is if the articular cartilage is cracked, and this is best seen with a MRI scan.

Treatment

The aim of treatment is to hold the dead piece of bone in place while the body heals itself. The younger you are the more likely this is to happen.

Children who have no symptoms and the OCD was only found by chance on an x-ray require regular follow up and x-rays. This ensures that the symptoms do not change and require treatment and that the OCD heals. This process can take up to 4 years.

Children with pain, locking or loose bodies require assessment to plan the best option.

Painful OCD's are best treated by pinning the dead bone to stop it moving and give it a better chance of healing.

Flapping lesions are best treated by clearing scar tissue out of where the bone came from, stimulating the thigh bone to produce new blood vessels and pinning the dead bone in place.

Loose bodies have the worst outcome. The loose body if at all possible should be pinned back in place similar to flapping lesions. If the body then heals itself this is better than any of the salvage procedures available.

Salvage procedures are used once all attempts at getting the bone to heal have failed. These are designed to replace the lost bone and articular cartilage.

