Soft-tissue knee problems

Soft-tissue knee problems

These can present as acute injures or as delayed, more chronic cases with additional degenerative problems. Specific structures commonly involved are the menisci, ligaments and tendons. These can also be associated with chondral or osteochondral injury . Meniscal tears The pattern of meniscal injury or degeneration is variable and can a ff ect either the medial and/or the lateral meniscus. circumferential, radial, horizontal, flap and degenerate. MRI scan is the investigation of choice for identifying meniscal tears. Meniscal tears seldom heal. Meniscal tears associated with a specific injury or with mechanical symptoms, e.g. catching, locking and giving way , generally respond well to arthroscopic repair or debridement. Factors making a tear amenable to repair include younger age of patient, early presentation, simple tear configuration, knee stability and a tear in the vascular outer third of the meniscus. Degenerate tears in ageing joints, without an episode of injury and without mechanical symptoms, are primarily treated conservatively with arthroscopy considered after failure of conservative treatment. Anterior cruciate ligament injury The ACL rupture is the most common serious ligament injury in the knee. Injury is usually caused by a twisting or landing injury in a pivoting sport. It may be associated with an audible ‘pop’, immediate swelling and the need to be ‘carried o ff ’ the field. The injury risk is higher among females; this is thought to be due to smaller ligaments, smaller femoral notches and di ff erent landing biomechanics. ACL deficiency can cause instability resulting in further damage to other structures, complex meniscal tears and chondral injury . Examination findings confirming an ACL injury include a positive Lachman test and a positive pivot shift test. MRI scan confirms the ACL rupture and identifies possible injury to secondary structures such as meniscus or cartilage. Isolated ACL injuries are generally initially managed non-operatively with a knee brace, painkillers, swelling reduc tion and physiotherapy . Surgical reconstruction is considered in multiligament injuries , in cases of persisting instability after non-operative management, or in young patients or high- demand athletes w ho tend to fail conservative treatment (see Chapter 36). Surgical reconstruction of the ACL is best under taken when the knee has recovered from the acute injury and has a good range of knee motion and muscle function. Extensor mechanism rupture This includes ruptures of either the quadriceps or patellar tendons. These are usually high-energy injuries but can occur more easily in those on steroids, following steroid injections or following previous open knee surgery that may have compro mised the blood supply to these structures. They usually present with significant pain and swelling and the inability to actively extend the knee. Prompt surgical repair or reconstruction is required to avoid a significant long-term loss of knee function. Articular cartilage injury These can occur in isolation or in association with ACL injuries or patellar dislocations. Partial-thickness defects do not show any potential to heal. Full-thickness defects in younger patients may mount a healing response with fibrocartilage. In higher energy injury , bone may be included in the surface fragment (osteochondral injury). If picked up acutely the chondral and osteochondral lesions may be surgically fixed back in place. Delayed options for full-thickness defects include: removal John W Lachman , 1919–2007, Professor and Chairman of the Orthopedic Department at Temple University in Philadelphia, PA, USA. collagen

membrane, osteochondral transplant (mosaicplasty) or chondrocyte transplant. Chondrocyte transplant usually involves autologous chondrocyte implantation (ACI) or matrix-assisted ACI (MACI). The age of the pa tient and the site and size of the defect determine the most appropriate treatment. Soft-tissue knee problems

These can present as acute injures or as delayed, more chronic cases with additional degenerative problems. Specific structures commonly involved are the menisci, ligaments and tendons. These can also be associated with chondral or osteochondral injury . Meniscal tears The pattern of meniscal injury or degeneration is variable and can a ff ect either the medial and/or the lateral meniscus. circumferential, radial, horizontal, flap and degenerate. MRI scan is the investigation of choice for identifying meniscal tears. Meniscal tears seldom heal. Meniscal tears associated with a specific injury or with mechanical symptoms, e.g. catching, locking and giving way , generally respond well to arthroscopic repair or debridement. Factors making a tear amenable to repair include younger age of patient, early presentation, simple tear configuration, knee stability and a tear in the vascular outer third of the meniscus. Degenerate tears in ageing joints, without an episode of injury and without mechanical symptoms, are primarily treated conservatively with arthroscopy considered after failure of conservative treatment. Anterior cruciate ligament injury The ACL rupture is the most common serious ligament injury in the knee. Injury is usually caused by a twisting or landing injury in a pivoting sport. It may be associated with an audible ‘pop’, immediate swelling and the need to be ‘carried o ff ’ the field. The injury risk is higher among females; this is thought to be due to smaller ligaments, smaller femoral notches and di ff erent landing biomechanics. ACL deficiency can cause instability resulting in further damage to other structures, complex meniscal tears and chondral injury . Examination findings confirming an ACL injury include a positive Lachman test and a positive pivot shift test. MRI scan confirms the ACL rupture and identifies possible injury to secondary structures such as meniscus or cartilage. Isolated ACL injuries are generally initially managed non-operatively with a knee brace, painkillers, swelling reduc tion and physiotherapy . Surgical reconstruction is considered in multiligament injuries , in cases of persisting instability after non-operative management, or in young patients or high- demand athletes w ho tend to fail conservative treatment (see Chapter 36). Surgical reconstruction of the ACL is best under taken when the knee has recovered from the acute injury and has a good range of knee motion and muscle function. Extensor mechanism rupture This includes ruptures of either the quadriceps or patellar tendons. These are usually high-energy injuries but can occur more easily in those on steroids, following steroid injections or following previous open knee surgery that may have compro mised the blood supply to these structures. They usually present with significant pain and swelling and the inability to actively extend the knee. Prompt surgical repair or reconstruction is required to avoid a significant long-term loss of knee function. Articular cartilage injury These can occur in isolation or in association with ACL injuries or patellar dislocations. Partial-thickness defects do not show any potential to heal. Full-thickness defects in younger patients may mount a healing response with fibrocartilage. In higher energy injury , bone may be included in the surface fragment (osteochondral injury). If picked up acutely the chondral and osteochondral lesions may be surgically fixed back in place. Delayed options for full-thickness defects include: removal John W Lachman , 1919–2007, Professor and Chairman of the Orthopedic Department at Temple University in Philadelphia, PA, USA. collagen membrane, osteochondral transplant (mosaicplasty) or chondrocyte transplant. Chondrocyte transplant usually involves autologous chondrocyte implantation (ACI) or matrix-assisted ACI (MACI). The age of the pa tient and the site and size of the defect determine the most appropriate

treatment. Soft-tissue knee problems

These can present as acute injures or as delayed, more chronic cases with additional degenerative problems. Specific structures commonly involved are the menisci, ligaments and tendons. These can also be associated with chondral or osteochondral injury . Meniscal tears The pattern of meniscal injury or degeneration is variable and can a ff ect either the medial and/or the lateral meniscus. circumferential, radial, horizontal, flap and degenerate. MRI scan is the investigation of choice for identifying meniscal tears. Meniscal tears seldom heal. Meniscal tears associated with a specific injury or with mechanical symptoms, e.g. catching, locking and giving way , generally respond well to arthroscopic repair or debridement. Factors making a tear amenable to repair include younger age of patient, early presentation, simple tear configuration, knee stability and a tear in the vascular outer third of the meniscus. Degenerate tears in ageing joints, without an episode of injury and without mechanical symptoms, are primarily treated conservatively with arthroscopy considered after failure of conservative treatment. Anterior cruciate ligament injury The ACL rupture is the most common serious ligament injury in the knee. Injury is usually caused by a twisting or landing injury in a pivoting sport. It may be associated with an audible ‘pop’, immediate swelling and the need to be ‘carried o ff ’ the field. The injury risk is higher among females; this is thought to be due to smaller ligaments, smaller femoral notches and di ff erent landing biomechanics. ACL deficiency can cause instability resulting in further damage to other structures, complex meniscal tears and chondral injury . Examination findings confirming an ACL injury include a positive Lachman test and a positive pivot shift test. MRI scan confirms the ACL rupture and identifies possible injury to secondary structures such as meniscus or cartilage. Isolated ACL injuries are generally initially managed non-operatively with a knee brace, painkillers, swelling reduc tion and physiotherapy . Surgical reconstruction is considered in multiligament injuries , in cases of persisting instability after non-operative management, or in young patients or high- demand athletes w ho tend to fail conservative treatment (see Chapter 36). Surgical reconstruction of the ACL is best under taken when the knee has recovered from the acute injury and has a good range of knee motion and muscle function. Extensor mechanism rupture This includes ruptures of either the quadriceps or patellar tendons. These are usually high-energy injuries but can occur more easily in those on steroids, following steroid injections or following previous open knee surgery that may have compro mised the blood supply to these structures. They usually present with significant pain and swelling and the inability to actively extend the knee. Prompt surgical repair or reconstruction is required to avoid a significant long-term loss of knee function. Articular cartilage injury These can occur in isolation or in association with ACL injuries or patellar dislocations. Partial-thickness defects do not show any potential to heal. Full-thickness defects in younger patients may mount a healing response with fibrocartilage. In higher energy injury , bone may be included in the surface fragment (osteochondral injury). If picked up acutely the chondral and osteochondral lesions may be surgically fixed back in place. Delayed options for full-thickness defects include: removal John W Lachman , 1919–2007, Professor and Chairman of the Orthopedic Department at Temple University in Philadelphia, PA, USA. collagen membrane, osteochondral transplant (mosaicplasty) or chondrocyte transplant. Chondrocyte transplant usually involves autologous chondrocyte implantation (ACI) or matrix-assisted ACI (MACI). The age of the pa tient and the site and size of the defect determine the most appropriate treatment.

Revision #1
Created 2025-12-31 15:16:05 UTC by Omar Ayman

Updated 2025-12-31 15:16:05 UTC by Omar Ayman