1 **Supplementary table 4** – reported diagnostic criteria

Reference	Diagnosis	Described diagnostic criteria
Mozes et al. (1985)	Clinically diagnosed "Iliopsoas syndrome"	Lower abdominal pain, lateral to the rectus abdominis muscle and above the inguinal ligament. Pain provocation with hip flexion and forward kicking of the ball. X-ray and US for exclusion of other pathologies.
Smedberg et al. (1985)	Athletic groin hernia confirmed by herniography	Groin pain with positive herniography. After positive herniography re-examination was performed to confirm if pain was a result of the hernia.
Martens et al. (1987)	Clinically diagnosed adductor tendinitis and/or rectus abdominis tendopathy	Adductor tendinitis: Pain when sprinting, pivoting, and shooting. Pain increases with fatigue and after sports activity. Stiffness the following day. Pain is situated in the groin. On PE there is local tenderness on deep pressure over the gracilis and adductor brevis muscles near the insertion. A painful active adduction in extension is noted. Rectus abdominis tendopathy: pain in the lower abdominal region when sprinting and on sudden movements. Pain after sports and also upon coughing. Local tenderness is primarily located at the insertion on the superior pubic ramus on PE. Pain in the lower abdominal region upon lifting both legs from the examination table. X-ray in both diagnoses negative
Fricker et al. (1991)	Clinical and radiological diagnosis of osteitis pubis in medical record	Clinical: gradually increasing discomfort in the pubic area, adductor area or the area of the lower rectus abdominis muscle. Movements such as kicking, running and pivoting on one leg typically aggravates the pain. Signs of osteitis pubis include tenderness of the symphysis pubis and adjacent pubic bodies and rami, and pain on adductor muscle stretch. Radiological: X-ray shows rarefaction and/or cystic changes of the symphysis margins with widening of the joint. A bone scan with 99mTc-methylenedi-phosphonate shows increased tracer uptake in the region of the symphysis.
Polglase et al. (1991)	Clinically diagnosed chronic groin pain	Lower abdominal wall pain, radiating to the medial thigh. Pain aggravated by running, kicking, coughing, sneezing and jumping. X-rays were normal, bone scans and peritoneography could be positive.
Shaker et al. (1991)	Clinically diagnosed traumatic aseptic osteitis pubis	Pain in the leg, hip, groin, symphysis or lower abdomen in relation to sports activity. PE may show local palpation tenderness and/or pain on adductor squeeze. Radiological examinations may be normal or show a wide range of abnormalities.
Akermark and Johansson (1992)	Clinically diagnosed long-standing groin pain at the origin of the adductor longus muscle	Long-standing groin pain on exertion, clinically localized to the proximal adductor longus muscle. Pain had to be refractory to conservative treatment. On PE active and passive muscle testing and palpation of the different adductor muscles. Negative PE of the rectus femoris and rectus abdominus muscles, hernias, entrapment neuropathies, tumours in the groin area, urogenital diseases and injuries in the lumbar region or sacroiliac joint. X-rays were performed.
Malycha and Lovell	Chronic undiagnosed	Chronic groin pain which did not respond to conservative treatment and had negative clinical

(1992)	groin pain (consistent with diagnosis of sportman's hernia)	examination and investigations (X-ray, and in some cases bone scan and/or herniography) for other pathology. All athletes had local tenderness above the inguinal ligament, lateral and superior to the pubic tubercle. Athletes had either ceased playing sport or had marked impairment of performance.
Holt et al. (1995)	Clinically diagnosed osteitis pubis	An insidious onset of pain in the adductor musculature, which aggravates with activities like kicking, running and pivoting. Pain located on the pubic symphysis and lower abdominal musculature. On PE tight adductors that are painful on resisted contraction tests and there tenderness on palpation of the pubic symphysis. Standard radiographs and bone scans confirm the diagnosis.
Simonet et al. (1995)	Clinically diagnosed sportman's hernia (radiological exclusion of other diagnoses)	Pain in the lower abdominal area, increasing during sport activities. On PE localised pain on palpation internal inguinal ring. X-ray, ultrasound, MRI or bone scan was performed and did not show abnormality.
Urquhart et al. (1996)	Clinically diagnosed groin disruption	Well-localised pain in the groin region which eventually results in inability to participate in sports. Radiation of pain is possible. Conservative treatment is frequently ineffective. On PE, there is a dilated external ring which is tender on palpation. Palpation pain may also be present on the pubic tubercle and mid-inguinal region. A cough impulse can be palpated. A CT-herniogram can be positive.
Ingoldby (1997)	Clinically diagnosed inguinal canal-related pain	Persistent pain located at the inguinal canal which prevented regular activities for 3 months or more. Patients with a hernia or pelvic pain were excluded.
Micheli and Solomon (1997)	Clinically diagnosed iliopsoas tendinitis	A slow progressive onset of an initially painless snap that occurs in performing the manoeuvre of développé to the side. In particular, this snap occurs as the leg is brought down from the elevated, abducted, and externally rotated position of the hip and aligned with the standing leg. Subsequently there is pain accompanying the snap, and this pain progresses to the point where dancing must be discontinued. On PE, there is a positive provocative hyper-flexion test, pain on resisted adduction in "frog" position and an iliopsoas stress test.
Evans (1998)	Clinically diagnosed sports hernia	Lower abdominal pain which increased during sports activity. The pain could be present during coughing or sneezing and radiation can be present. Conservative treatment fails and patients have to stop sports activities. On PE, the direct stress examination test (lower abdomen painful on palpation during sit-up) must be positive.
Lacroix et al. (1998)	Clinically diagnosed lower abdominal pain syndrome (radiological exclusion of other diagnoses)	Pain in the lower abdominal area, which prevented athletes from sport activities. On PE no signs of hernia. X-ray, ultrasound, CT, MRI or bone scan was performed and did not show abnormalities.

Holmich et al. (1999)	Clinically and/or radiologically diagnosed adductor-related groin pain	Pain on palpation of the adductor tendons or the insertion on the pubic bone, or both, and groin pain during active adduction against resistance. Moreover, a minimum of 2 of the following 4 criteria had to be met: (1) a characteristic history of, for instance, groin pain and stiffness in the morning, groin pain at night, groin pain with coughing or sneezing; (2) pain at palpation of the symphysis joint; (3) increased scintigraphic activity in the pubic bone; (4) radiographic signs of osteitis pubis around the symphysis joint. Other causes (hernia, neurogenic, hip-related, malignancy, bursitis of systemic disorders) were excluded.
Brannigan et al. (2000)	Clinically diagnosed Gilmore's groin hernia	Chronic pain in the area around the pubic tubercle of the affected groin. Increasing pain after sports and during increased intra-abdominal pressure (e.g. coughing). On PE, the pubic tubercle is the site of maximum pain. In addition, the superficial inguinal ring is typically dilated upon scrotal invagination, easily admitting the tip of the index finger.
Meyers et al. (2000)	Clinically diagnosed lower abdominal pain syndrome or inguinal pain	Chronic inguinal or pubic-area pain in athletes, that is exertional only and not explainable preoperatively by a palpable hernia or other medical diagnosis. Pain can be bilateral and located on the medial thigh. The pain negatively influenced athletic activity. Radiological examination was performed in many cases, but not structurally.
McKim et al. (2001)	Clinically diagnosed Osteitis pubis	The diagnosis of osteitis pubis was made by PE, which included tenderness over the symphysis, tenderness of the inferior pelvic rami, positive squeeze test and possible pain centrally on single leg hop. This was confirmed by the finding of increased tracer uptake in the region of the symphysis pubis on a delayed view bone scan.
Ekstrand and Ringborg (2001)	Chronic groin pain due to incipient hernia and/or nerve entrapment, diagnosed with herniagraphy and/or nerve block test	More than 3 months of pain in the groin area with positive herniography and/or nerve block test of the ilio-inguinal or ilio-hypogastric nerve.
Irshad et al. (2001)	Clinically diagnosed hockey groin syndrome	Pain exacerbated by pushing off the skates or taking a slap-shot. Gradual onset of pain and exacerbation by ipsilateral hip extension and contralateral torso rotation. PE reveals tenderness in the affected groin and absence of a clinically apparent inguinal hernia. No standardised radiological work-up, but in many cases the additional diagnostics were performed and negative.
Kumar et al. (2002)	Clinically diagnosed Sports hernia	Chronic groin pain which was exacerbated by sports activity or coughing/sneezing. No effect of conservative treatment, including stretching and strengthening exercises. On PE a painful palpation of the inguinal canal and pubic tubercle which increased during a sit-up or coughing. Radiological

		examination were performed if there was suspected co-morbidity and a patient was excluded if imaging confirmed co-morbidity.
O'Connell et al. (2002)	Clinically and radiologically diagnosed Osteitis pubis	Debilitating groin pain in combination with a radiological sign of osteitis pubis: (1) Radiographic visualisation of an articular surface irregularity, erosion, sclerosis and osteophyte formation. Symphyseal joint laxity or disruption was diagnosed in patients with widening of the joint space > 7 mm and malalignment of the upper margins of the superior pubic rami of > 2 mm on flamingo views. (2) Scintigraphic criteria for the diagnosis of osteitis pubis were focal accumulation of radionuclide at or adjacent to the symphysis pubis on delayed scans. (3) The MRI criteria for the diagnosis of osteitis pubis were visualisation of an articular surface irregularity on coronal T1-weighted images and axial T2-weighted images and para-articular marrow edema on fat-suppressed coronal images.
Srinivasan and Schuricht (2002)	Clinically diagnosed Sports hernia	Pain worsening with athletic activity. Hernias were classified according to the grading system developed by Nyhus.
Biedert et al. (2003)	Clinically diagnosed chronic symphysis syndrome	Chronic pain during sports activities in the lower abdominal area, which may be accompanied by pain in the adductor region. Pain on palpation was located in all patients in the inguinal canal, at the lateral border of the sheath of the rectus abdominis muscle, in the insertion area on the pubis and along the adductor muscles near the pubis.
Van Der Donckt et al. (2003)	Clinically diagnosed chronic groin pain	Groin pain for > 6 months which did not improve after conservative treatment for at least 6 months. Patients were selected after careful screening of all the differential diagnostic possibilities
Genitsaris et al. (2004)	Clinically diagnosed chronic groin pain	Persistent groin pain, despite initial conservative treatment for 6 months. Physical signs could include a dilated external ring, hernia or PE could be normal. Other causes of groin pain were excluded (not specified).
Kluin et al. (2004)	Undiagnosed chronic groin pain	Undiagnosed groin pain for at least 3 months that does not respond well to conservative measures including prolonged rest. The pain must be related to sport and must make sport on the patient's desired level impossible. Imaging (X-ray, ultrasound and bone scan) must be negative.
Paajanen et al. (2004)	Clinically diagnosed sportman's hernia (radiological exclusion of other diagnoses)	A typical history associated with deep palpation pain at pubic tubercle was considered diagnostic. Other causes of groin pain were clinically or radiologically excluded.
Steele et al. (2004)	Clinically diagnosed posterior inguinal wall deficiency	A history of chronic groin pain in the inguinal region with or without radiation to the testicle or upper medial thigh, and worse with cough or sit-up. The tenderness was located at the superficial inguinal ring or conjoint attachment to the pubic tubercle. Patients with tenderness at the pubic symphysis, a direct inguinal hernia or adductor origin pain were considered to have coexistent pathology and were not included.

Susmallian et al. (2004)	Sportman's hernia	A history of > 1 year chronic groin pain with conservative treatment that had failed.
Ahumada et al. (2005)	Clinically diagnosed sportman's hernia	Groin pain that did not respond to physical therapy. Symptoms exacerbated by activity and temporarily relieved with rest. The pain manifests as point tenderness over the pubis at the rectus abdominus muscle origin. Exclusion of other causes: prostatitis, epididymitis, urethritis, hydrocele, inguinal hernia, osteitis pubis, bursitis, gynaecologic disorders and arthritis of the hip.
Diaco et al. (2005)	Clinically diagnosed sportman's hernia	Groin pain associated with running, cutting, or bending. No pain with rest, but, increased pain after activity. Groin pain for 3 months or longer and no other causes.
Topol et al. (2005)	Clinically diagnosed osteitis pubis and/or adductor tendinopathy	Chronic groin pain that blocked full performance in sports and occurred with activities of daily living. No effect of physiotherapy modalities.
Canonico et al. (2006)	Clinically and radiologically diagnosed chronic inguinal pain	The presence of a groin hernia or a wide internal ring and peritoneal dimple as assessed using inguinal dynamic ultrasound. Absence of adductor muscle injury and skeletal changes.
Edelman and Selesnick (2006)	Sportman's hernia, diagnosed as a tear in the transversalis fascia during surgery	A tear in the transversalis fascia that was not evident on preoperative physical exam, but present during surgery. No response to conservative treatment. Radiological exams negative.
Schilders et al. (2007)	Clinically diagnosed adductor-related groin pain	An athlete with tenderness localized to the adductor longus origin, pain on passive stretching of the adductors, and pain on adduction of the thigh against resistance, and failure to respond to non-operative treatment. Absence of a clinical diagnosis of osteitis pubis or a sports hernia, or clinical and/or radiological evidence of hip joint pathology.
Van Veen et al. (2007)	Clinically diagnosed sportman's hernia, radiological exclusion of other causes	Groin pain related to sports activities. The pain existed for at least 3 months and did not respond to conservative therapy. Radiological (radiograph, ultrasound, bone scan or MRI) exclusion of other causes.
Verrall et al. (2007)	Clinically and radiologically diagnosed pubic bone stress injury	Chronic groin pain that had been present for longer than 6 weeks in duration, with impaired training and/or playing performance, and a diagnosis of non–hip-related cause for their groin pain. Pain located at the anterior groin, adductor region or lower abdominal region central. PE showed tenderness on the pubic symphysis, superior pubic ramus, and/or pubic bone at the adductor origin and positive pubic pain provocation tests: squeeze and bilateral adductor. MRI criteria was extensive pubic bone marrow edema

		and/or presence of hyperintense line.
Brown et al. (2008)	Clinically diagnosed "intractable lower abdominal and groin pain"	Pain increasing in intensity during ice hockey with acceleration or changing direction. Dramatic reduction of performance. Pain on coughing or sneezing and arising out of bed. On PE, all patients exhibited varying degrees of tenderness on palpation of the inguinal region, especially over the external inguinal ring. Radiological examinations were frequently negative.
Lloyd et al. (2008)	Clinically diagnosed "inguinal ligament pathology"	Chronic groin pain for 8 weeks or longer with no improvement after rest, limitation of sports activity, or physiotherapy. On PE, there had to be localized tenderness over the insertion of the inguinal ligament and superficial ring with no overt evidence of a hernia. In addition, the pain had to be reproduced on straining with the Valsalva manoeuvre of sitting up against resistance.
Meyers et al. (2008)	Clinically diagnosed "athletic pubalgia"	Diagnosis of the various clinical entities were made by a combination of history and physical examination, and in more recent years supported by new MRI techniques.
Radic and Annear (2008)	Clinically diagnosed "osteitis pubis"	A typical history of gradually increasing -unilateral or bilateral discomfort or pain in the pubic area, 1 or both groins (adductor areas), and the area of the lower rectus abdominis muscle. Additional signs of osteitis pubis include tenderness of the symphysis pubis and adjacent pubic bodies and rami, as well as pain on adductor muscle stretch. Various imaging techniques such as plain radiographs, bone scans, and MRI have been used to augment this diagnosis but these may be normal.
Topol and Reeves (2008)	Clinically diagnosed "chronic groin/abdominal pain" with a positive local anaesthetic injection test	Athletes were required to be both “elite” and “impaired.” Reproduction of the athlete’s pain was required by palpation of the pelvic rim and/or ischiopubic ramus with abdominal or thigh adductor contraction against manual resistance by the examiner. No response after conservative treatment program of at least 2 months. > 90% of pain relief after a local anaesthetic injection on the most painful location.
Ziprin et al. (2008)	Clinically diagnosed sportman's hernia	Groin pain not present at rest and increased on sudden movement, on coughing, and came on after participation in sports activity. A slow onset of pain over a period of time. On PE, there had to be tenderness in the mid-inguinal region, and a positive stress test (i.e., tenderness over the affected inguinal region on coughing or straining) and the absence of a true hernia. Each patient had failed with non-operative treatment. Investigations included radiographs of the pelvis, ultrasonography, bone scan and MRI. All these investigations were found to be normal in all patients.
Atkinson et al. (2009)	Clinically diagnosed chronic adductor-related groin pain	Chronic sports-related groin pain that did not respond to physiotherapy. On PE there was tenderness at the adductor longus origin and a positive ‘squeeze’ test.
Jansen et al. (2009)	Clinically diagnosed longstanding groin	Groin pain that restricted athletes from sports participation for at least 4 weeks, with motivation to return to sports. On PE, the groin pain needed to be provoked during a squeeze test. Other causes (acute

	pain associated with resisted hip adduction	trauma, indications of fracture, hip arthritis, inguinal and/or femoral hernia, bursitis, referred pain, organ-related symptoms, psychopathology, systemic disease, earlier surgery in the groin region, visually abnormal anatomy of the hip, back, or pelvis) were excluded.
Mann et al. (2009)	Clinically diagnosed chronic groin pain	Groin pain with no improvement following rest or limitation of sporting activity, physiotherapy, injection or previous surgery. Symptoms had to be present for at least 6 weeks. On PE, there had to be localised tenderness over the insertion of the inguinal ligament and superficial ring with no overt evidence of a hernia. Increased pain on coughing while the inguinal ligament attachment was palpated. Pain on pubic tubercle palpation and ipsilateral hip flexion with adduction against resistance. The pain had to be reproduced on straining with the Valsava manoeuvre of sitting up against resistance. Imaging was not routinely used in preoperative assessment.
Schilders et al. (2009)	Clinically diagnosed adductor longus dysfunction. Clinical and radiological exclusion of other causes.	A recreational athlete with clinical adductor dysfunction, diagnosed as pain reproduced by (1) palpation of enthesis, (2) passive stretching of adductors, and (3) active resisted adduction. There had to be failure of conservative treatment. Patients were excluded if there was any clinical evidence of sports hernia or osteitis pubis or any clinical or radiological evidence of hip joint pathology.
Schlegel et al. (2009)	Clinically diagnosed and radiologically confirmed proximal adductor tendon rupture	A proximal adductor injury confirmed by MRI.
Weir et al. (2009)	Clinically diagnosed chronic adductor-related groin pain	A minimum of 2 months of pain in the groin during or after sport together with pain during or after sports at the proximal insertion of the adductors; together with pain on palpation at the proximal insertion of the adductors and a positive-resisted adduction test. Athletes with suspicion of inguinal or femoral hernias, prostatitis or urinary tract infections, lumbar spine pathology, hip arthritis or impingement, bursitis, nerve entrapment or knee ligament instability were excluded.
Muschaweck and Berger (2010)	Clinically and ultrasonographically diagnosed Sportman's groin	Groin pain, often with radiation down the inner thigh, the scrotum, the testicles, and the pubic bone. On PE, no inguinal hernia was found, but there was a localised bulge in the posterior wall of the groin canal during the Valsalva manoeuvre. On ultrasonography, a convex anterior bulge of the posterior inguinal wall was observed during stress.
Chernyavsky et al. (2011)	Clinically diagnosed Athlete's Hernia	Groin pain with an insidious onset and superomedial thigh pain without a specific inciting event. The pain is frequently intense, especially while trying to participate in physical activity, and subsides with rest. On PE, there is tenderness, especially deep and

		inferior to the inguinal ligament. The external ring is often palpably widened, especially when compared with the asymptomatic side. There is no true hernia. Radiological examinations are frequently negative.
Paajanen et al. (2011)	Clinically diagnosed Sportman's hernia and/or adductor tendinitis	Sportman's hernia: Groin symptoms that had persisted for 3-6 months. The location of pain had to be rostral to the inguinal ligament in the deep inguinal ring on palpation, with or without tenderness over the pubic symphysis or tubercle, or at the insertion of adductor tendons. A dull, diffuse pain in the groin, often radiating to the perineum and inner thigh or across the mid-line could be present. Imaging studies only were not decisive, but exclusion criteria were isolated adductor tendinitis, avulsion fractures of the pelvic bone, obvious inguinal hernias, suspicion of inguinal nerve entrapment, referred spinal pain, disorders of the hip joint or bursitis, and any gynecologic, urologic, or suspected bowel pathology. Adductor tendinitis: distinct pain at the proximal origin of the adductor longus muscle and tendon and provocation of pain at exertion to the proximal part of the adductor longus muscle.
Preskitt (2011)	Clinically diagnosed sports hernia	A deep lower abdominal or groin pain, exacerbated with sport-specific activities and relieved with rest. The most specific signs are tenderness over the medial inguinal floor and pain in the inguinal floor with a resisted sit-up. Other causes of pain must be ruled out: genitourinary, intra-abdominal, gynaecological, hip/lumbar, or other muscular strains and sprains.
Robertson et al. (2011)	Clinically diagnosed adductor tendinopathy. Radiological exclusion of other causes in case of suspicion	Pain and tenderness of the adductor longus origin of greater than 3 months duration with a positive squeeze test. MRI was reserved for those patients where coexistent pathologies such as osteitis pubis or hip joint pathology were suspected, which were excluded.
Weir et al. (2011-Phys Ther)	Clinically diagnosed longstanding adductor-related groin pain	A minimum of 1 month of pain in the groin during or after sport together with pain during or after sports at the proximal insertion of the adductors; together with pain on palpation at the proximal insertion of the adductors and a positive-resisted adduction test. Athletes with suspicion of inguinal or femoral hernias, pain above the inguinal ligament, prostatitis or urinary tract infections, lower back pain, hip arthritis, bursitis or nerve entrapment were excluded.
Weir et al. (2011 - Man Ther)	Clinically diagnosed chronic adductor-related groin pain	A minimum of 2 months of pain in the groin during or after sport together with pain during or after sports at the proximal insertion of the adductors; together with pain on palpation at the proximal insertion of the adductors and a positive-resisted adduction test. Athletes with suspicion of inguinal or femoral hernias, pain above the inguinal ligament, prostatitis or urinary tract infections, lower back pain, hip arthritis, bursitis, nerve entrapment or knee ligament instability were excluded.
Dojcinovic et al. (2012)	Clinically diagnosed Sports hernia and/or	Sports hernia: chronic pain of varying intensity in the region of lower abdominal wall, resistant to conservative treatment. Ultrasonography was performed. Adductor tendinosis: in case of clinical

	adductor tendinosis	suspicion, MRI was performed to exclude possibility of Femoro-Acetabular Impingement or osteitis pubis
Jans et al. (2012)	Clinically diagnosed sportman's hernia. Radiological exclusion of other causes.	A painful palpation of the conjoint tendon and the pubic tubercle. In some cases the experienced clinician can find a dilated and hypersensitive outer inguinal ring. Resisted forceful sit-ups and hip adduction are painful. Furthermore, PE was done to exclude Femoroacetabular Impingement, a true hernia and intra-abdominal pathology. Radiology (X-ray, ultrasonography, MRI or bone scan) was performed to exclude other causes of pain.
Maffulli et al. (2012)	Clinically diagnosed unilateral adductor longus tendinopathy	Presence of groin pain and functional limitation which did not respond to 6-month non-operative treatment. The clinical diagnosis was made if 3 tests were positive: tenderness localised to the adductor longus origin, pain on passive stretching of the adductors, and pain on adduction of the thigh against resistance. Other causes (hip pathology, osteitis pubis, hernia or urological disorders) were excluded with PE and/or imaging and/or referral to a specialist.
Messaoudi et al. (2012)	Clinically diagnosed Sportman's hernia	A dull, chronic groin pain, with an insidious onset which is intensified by running and sudden accelerations. Passing or kicking may elicit pain. PE reveals point tenderness over the conjoined tendon or medial inguinal canal, distal rectus insertion, pubic tubercle or adductor. Valsava maneuvers often worsen the pain, but no hernia is palpated. There is discomfort when palpating the groin during forceful resisted sit ups and hip adduction is often a classic finding. Radiology (X-ray, ultrasonography, MRI or bone scan) was performed to exclude other causes of pain.
Comin et al. (2013)	Clinically diagnosed Sportman's hernia	Chronic groin pain of no readily identifiable structural cause and of greater than 6 months duration which did not respond to conservative treatment. Extensive clinical assessment and MRI scans were used to exclude alternate diagnoses (such as inguinal hernia, hip joint disorders, iliopsoas bursitis, symphyseal degeneration, adductor tears and stress fracture).
Economopoulos et al. (2013)	Clinically diagnosed Sports hernia	Disabling groin pain associated with exertion, along with the clinical examination of pain with Valsalva and partial sit-up. Other physical findings included pain over the pubis and inguinal area on palpation. Imaging studies used to evaluate the patients included MRI and ultrasound of the groin.
Garvey and Hazard (2013)	Clinically diagnosed Sports hernia, Conjoint tendinopathy, groin disruption injury, Classical hernia, Adductor tendinopathy, Rectus abdominis syndrome,	Undiagnosed chronic groin or lower abdominal pain, with either negative or equivocal physical examination findings. Athletes with a clinically obvious hernia were also included. MRI and/or ultrasonography was frequently performed and the result was negative or inconclusive.

	Avulsion fracture of pubic bone, Traumatic osteitis pubis, Neuralgia or Hip degeneration	
Jakoi et al. (2013)	Diagnosis of Sports hernia	Players who were reported to have had a sports hernia who were treated with surgical repair, as described in the medical file on a website.
Mei-Dan et al. (2013)	Clinically diagnosed recalcitrant groin pain (with or without lower abdominal pain)	Groin pain that failed to resolve with non-operative therapy. Athletes were unable to compete at the desired competitive level due to the pain. On PE there had to be adductor tendon insertion pain, a positive squeeze test (with or without pubic bone tenderness), and/or tenderness of the surrounding aponeurosis.
Schilders et al. (2013)	Clinically diagnosed chronic adductor-related groin pain and radiological exclusion of other causes	Chronic adductor longus dysfunction for more than 3 months that was not responsive to non-operative treatment. Groin pain while sprinting, during side-to-side movements, or with long kicks. Clinically, there had to be pain over the proximal adductors and on resisted adduction. Athletes with PE and/or radiological (radiograph and/or MRI) signs of an acute avulsion, femoroacetabular impingement, osteitis pubis or sports hernia were excluded from the study.
Bernhardt et al. (2014)	Clinically diagnosed Sportmen's groin. Ultrasonography was used to exclude true hernias	Groin pain that did not respond to conservative treatment/rest for 3 months. Existence of a hernia was ruled out preoperatively by clinical examination and/or sonography. If a true hernia was visualised during the laparoscopic procedure, the patient was excluded. Other reasons for groin pain were excluded by urological, gynaecological, neurological and orthopaedic examinations and additional radiological studies (X-ray, CT scan, MRI).
Cavalli et al. (2014)	Clinically diagnosed Sportman's hernia. Radiological exclusion (MRI) of other causes (osteitis pubis).	Chronic groin pain without a clinically evident hernia that did not respond to conservative treatment. The pain had to be 6 points or more on a VAS scale or disabling physical activity. On PE there was frequently bulging of the posterior wall and pain on valsalva. There had to be a positive abdominal crunch test and adductor test. MRI was used to exclude osteitis pubis.
de Queiroz et al. (2014)	Clinically and radiologically diagnosed pubalgia	Groin pain in the pubic symphysis that did not respond to conservative treatment for at least 12 months. Players had to be moved out of the main team with a decline in performance. There had to be pain when standing up on one leg and pain on flexing the trunk. PE had to show a positive squeeze test and lateral compression test, pain on palpation of the symphysis and adjacent structures, pain on flexing the trunk and pain on resisted adduction. There had to be an abnormal radiograph (Irregularity of the margin of the pubic symphysis, Bone reabsorption, Bone sclerosis, Bone avulsion, Alterations at the sacroiliac joint and Vertical instability) and/or MRI (bone marrow edema).

Sansone et al. (2014)	Clinically diagnosed pubalgia	Long-standing groin pain and the inability to participate in sport because of pain over the adductor origin and/or the pubic attachment of the rectus abdominis. All athletes failed conservative treatment including unspecified physiotherapy

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