

Supplementary table 3 - Data extraction of the included articles listed according to diagnostic category

Inguinal-related

Ref	Study type	N	Mean Age (year)	Type of Sports	Diagnosis	Mean Duration symptoms (months)	Intervention treatment group	Intervention control group(s)	Mean follow-up (months)	Treatment success (%)	Athletes RTP (%)	D&B Quality score (points)
Comin et al. (2013)	RCT	36	43.2	Football	Sportman's hernia	9.1	Radiofrequency denervation of the ilioinguinal nerve and inguinal ligament (RF)	Corticosteroid injection inguinal ligament (CI)	6	RF: 77% † CI: 8%	RF: NL CI: NL	18
Muscha weck and Berger (2010)	PCS	87	29	NL	Sportman's hernia	3	Surgical open hernia repair with or without partial removal of the genito-femoral nerve	NA	1	79%	84%	16
Canonico et al. (2007)	PCS	16	19	Football	Chronic inguinal pain	NL	Surgical open hernia repair	NA	12	100%	100%	14
Economopoulos et al. (2013)	CCT	28	23.5	NL	Sportman's hernia	NL	Surgical open hernia repair (HR)	Surgical minimal repair technique (MR)	41	HR: 93% ¥ MR: 78%	HR: 93% † MR: 64%	14
Malycha and Lovell (1992)	RCS	44	25.4	Football	Sportman's hernia	9	Surgical open hernia repair	NA	6	98%	93%	13
Kumar et al. (2002)	RCS	25	30	Football	Sportman's hernia	NL	Surgical external oblique repair and hernia repair	NA	6	82%	93%	12
Van Veen et al. (2007)	PCS	55	25	Football	Sportman's hernia	NL	Surgical laparoscopic hernia repair	NA	3	88%	88%	12
Brannigan et al. (2000)	RCS	85	24	Irish football	Gilmore's groin hernia	13.6	Surgical open hernia repair	NA	NL	96%	96%	11
Irshad et al. (2001)	RCS	22	26	Ice hockey	Hockey groin syndrome	6	Surgical external oblique repair with neurotomy of the ilioinguinal nerve	NA	31.2	82%	100%	11
Paajanen et al. (2004)	RCS	41	27	Football	Sportman's hernia	9.2	Surgical laparoscopic hernia repair	NA	51	95%	95%	10
Lloyd et	RCS	28	38.5	NL	Inguinal	18	Surgical laparoscopic	NA	6	57%	92%	10

al. (2008)					ligament pathology		inguinal ligament tenotomy					
Ingoldby (1997)	RCS	28	NL	Rugby	Inguinal canal-related pain	NL	Surgical open hernia repair	NA	NL	100%	100%	9
Ekstrand and Ringborg (2001)	RCT	66	25	Football	Chronic groin pain due to incipient hernia and/or nerve entrapment	13	Surgical open hernia repair with neurectomy of the ilio-inguinal and ilio-hypogastric nerves (OR)	(1) Standard physical therapy (PT), (2) Exercise therapy (ET), and (3) Wait and see (WS)	6	OR: 94% + (PT) 19% (ET) 39% (WS) 27%	NL	9
Srinivasan and Schuricht (2002)	RCS	15	27.1	Football	Sportman's hernia	11.1	Surgical laparoscopic hernia repair	NA	12.1	100%	87%	9
Bernhardt et al. (2014)	PCS	28	29	Football	Sportman's hernia	NL	Surgical laparoscopic hernia repair	NA	94	88%	NL	9
Evans (1998)	RCS	154	24.1	Football	Sportman's hernia	NL	Surgical laparoscopic hernia repair	NA	NL	99%	93%	8
Edelman and Selesnick (2006)	RCS	10	31.9	Football and Basketball	Sportman's hernia	NL	Surgical laparoscopic hernia repair	NA	12	80%	NL	8
Jakoi et al. (2013)	RCS	43	NL	Ice Hockey	Sportman's hernia	NL	Surgical treatment (not specified)	NA	24	27%	80%	8
Smedberg et al. (1985)	RCS	53	29.1	Football	Athletic groin hernia	10	Surgical open hernia repair	NA	41	90%	98%	7
Lacroix et al. (1998)	RCS	11	NL	Ice hockey	Lower abdominal pain syndrome	NL	Surgical external oblique repair with neurectomy of the ilio-inguinal nerve	NA	NL	91%	91%	7
Ziprin et al. (2008)	RCS	17	27	NL	Sportman's hernia	6	Surgical laparoscopic hernia repair	NA	6	94%	94%	7
Messaoudi et al. (2012)	RCS	71	24	Football	Sportman's hernia	11	Surgical open hernia repair with bilateral percutaneous adductor release	NA	48	100%	94%	7
Steele et al. (2004)	RCS	47	NL	Football and Australian football	Posterior inguinal wall deficiency	8	Surgical open hernia repair	NA	NL	81%	77%	6

Ahumad a et al. (2005)	RCS	12	25	Running	Sportman's hernia	9	Surgical open hernia repair with or without adductor release	NA	4	100%	100%	6
Diaco et al. (2005)	RCS	96	NL	NL	Sportman's hernia	NL	Surgical open hernia repair or laparoscopic repair with or without adductor release	NA	NL	98%	96%	6
Cavalli et al. (2014)	RCS	80	34.7	NL	Sportman's hernia	NL	Surgical open hernia repair with neurectomy and with or without adductor/rectus abdominis release	NA	NL	100%	100%	6
Simonet et al. (1995)	RCS	10	25.5	Ice hockey	Sportman's hernia	9.6	Surgical open hernia repair	NA	NL	100%	100%	5
Urquhart et al. (1996)	RCS	24	31.8	Football	Groin disruption	6	Surgical open hernia repair	NA	12	72%	72%	5
Susmallian et al. (2004)	RCS	35	24.3	Football	Sportman's hernia	NL	Surgical open hernia repair	NA	14.6	97%	97%	5
Chernyavsky et al. (2011)	RCS	96	22.6	Football and Rugby	Athlete's Hernia	NL	Surgical muscle repair with neurectomy of the affected nerves	NA	1.5	98%	98%	4
Preskitt (2011)	RCS	100	NL	NL	Sportman's hernia	NL	Surgical open hernia repair	NA	NL	98%	98%	4

Pubic-related

Ref	Study type	N	Mean Age (year)	Type of Sports	Diagnosis	Mean Duration symptoms (months)	Intervention treatment group	Intervention control group(s)	Mean follow-up (months)	Treatment success (%)	Athletes RTP (%)	D&B Quality score (points)
McKim and Taunton (2001)	PCS	11	38.9	Football	Osteitis pubis	20.6	Compression short	NA	0	33%	NL	16
Verrall et al. (2007)	PCS	27	23	Australian Football	Pubic bone stress injury	4.5	Exercise therapy	NA	24	74%	100%	13
Holt et	RCS	11	NL	NL	Osteitis	NL	Corticosteroid injection	NA	NL	91%	NL	12

al. (1995)					pubis		symphysis					
Sansone et al. (2014)	RCS	32	24	Football	Pubalgia	NL	Surgical adductor and/or rectus abdominis tenotomy	NA	72	75%	72%	11
Radic and Annear (2008)	RCS	23	27	Australian football	Osteitis pubis	13.2	Surgical curettage of the pubic symphysis	NA	24.3	74%	70%	10
Shaker et al. (1991)	RCS	78	22	Football	Osteitis pubis	3	NSAIDs and physical therapy. Corticosteroid injection pubic bone if non-response	NA	NL	75%	75%	9
de Queiroz et al. (2014)	RCS	30	24.4	Football	Pubalgia	18.6	Surgical adductor tenotomy	NA	36	100%	100%	9
O'Connell et al. (2002)	RCS	16	28.4	NL	Osteitis pubis	NL	Corticosteroid injection symphysis	NA	6	69%	100%	6
Fricker et al. (1991)	RCS	45	30.3	Running	Osteitis pubis	10.1	NSAIDs and physical therapy	NA	16.5	75%	49%	5
Meyers et al. (2008)	RCS	5460	NL	Football	Athletic pubalgia	NL	Surgical open muscle reattachments and/or releases	NA	NL	95%	95%	2

Adductor-related

Ref	Study type	N	Mean Age (year)	Type of Sports	Diagnosis	Mean Duration symptoms (months)	Intervention treatment group	Intervention control group(s)	Mean follow-up (months)	Treatment success (%)	Athletes RTP (%)	D&B Quality score (points)
Weir et al. (2011)	RCT	48	28.1	Football	Long-standing adductor-related groin pain	8	Exercise therapy and manual therapy (MM)	Exercise therapy (ET)	5	MM: 50% ¥ ET: 55%	MM: 50% ¥ ET: 55%	24
Holmich et al. (1999)	RCT	68	30	Football	Long-standing adductor-related groin	9.9	Exercise therapy (ET)	Standard physical therapy (PT)	6.5	ET: 74% † PT: 30%	ET: 79% † PT: 14%	23

					pain							
Schilders et al. (2013)	PCS	43	26.4	Football	Long-standing adductor-related groin pain	9.4	Surgical adductor tenotomy	NA	40.2	81%	98%	19
Maffulli et al. (2012)	PCS	29	28	Football	Adductor longus tendinopathy	20	Surgical bilateral percutaneous adductor tenotomy	NA	36	46%	90%	17
Weir et al. (2009)	RCS	30	20.5	Football	Long-standing adductor-related groin pain	9	Manual therapy technique	NA	9	84%	90%	16
Schilders et al. (2007)	PCS	24	27.7	Football	Adductor-related groin pain	4.8	Corticosteroid injection symphysis	NA	12	33%	NL	14
Schilders et al. (2009)	RCS	28	33.4	Football	Adductor longus dysfunction	17.8	Corticosteroid injection symphysis	NA	12	68%	NL	14
Atkinson et al. (2009)	PCS	48	NL	Australian football	Long-standing adductor-related groin pain	16.7	Surgical percutaneous adductor tenotomy	NA	36	67%	81%	13
Weir et al. (2010)	RCS	44	27	Football	Long-standing adductor-related groin pain	NL	Exercise therapy and passive joint mobilisation	NA	22	71%	77%	13
Robertson et al. (2011)	RCS	109	25.9	Gaelic football	Adductor tendinopathy	15	Surgical open adductor tenotomy	NA	26	72%	92%	11
Schlegel et al. (2009)	RCS	19	28.5	Rugby	Proximal adductor tendon rupture	NL	Exercise therapy (ET)	Surgical adductor repair (SR)	NL	ET: 100% SR: NA (n<10)	ET: 100% SR: NA (n<10)	10
Akermark and Johansson (1992)	RCS	16	28.5	Football and Ice hockey	Chronic groin pain at the origin of the adductor longus muscle	18.3	Surgical adductor tenotomy	NA	34.8	100%	94%	9

Iliopsoas-related

Ref	Study type	N	Mean Age (year)	Type of Sports	Diagnosis	Mean Duration symptoms (months)	Intervention treatment group	Intervention control group(s)	Mean follow-up (months)	Treatment success (%)	Athletes RTP (%)	D&B Quality score (points)
Mozes et al. (1985)	RCS	40	24	Football	Iliopsoas syndrome	NL	Corticosteroid injection iliopsoas	NA	NL	100%	88%	12
Micheli and Solomon (1997)	RCS	13	17.7	Dancers	Iliopsoas tendinitis	NL	Corticosteroid injection iliopsoas	NA	13	76%	NL	6

Chronic groin pain

Ref	Study type	N	Mean Age (year)	Type of Sports	Diagnosis	Mean Duration symptoms (months)	Intervention treatment group	Intervention control group(s)	Mean follow-up (months)	Treatment success (%)	Athletes RTP (%)	D&B Quality score (points)
Mann et al. (2009)	PCS	73	30	Football	Chronic groin pain	5	Surgical laparoscopic hernia repair	NA	NL	73%	99%	16
Jansen et al. (2009)	PCS	21	24.8	Football	Chronic groin pain	9.3	Exercise therapy	NA	14	79%	NL	14
Kluin et al. (2004)	RCS	14	36	Football	Chronic groin pain	NL	Surgical laparoscopic hernia repair	NA	12	86%	93%	12
Genitsaris et al. (2004)	RCS	131	23.5	Football	Chronic groin pain	4.5	Surgical laparoscopic hernia repair	NA	60	99%	NL	8
Van Der Donckt et al. (2003)	RCS	41	27	Football	Chronic groin pain	15.2	Surgical open hernia repair with adductor release	NA	150	98%	100%	7
Polglase et al. (1991)	RCS	63	24	Australian Football	Chronic groin pain	9.2	Surgical open hernia repair with or without division of the ilio-inguinal nerve	NA	NL	95%	95%	6

Combined diagnoses

Ref	Study type	N	Mean Age	Type of Sports	Diagnosis	Mean Duration	Intervention treatment group	Intervention control group(s)	Mean follow-up	Treatment success (%)	Athletes RTP (%)	D&B Quality score (points)
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			(year)			symptoms (months)			(months)			
Paajanen et al. (2011)	RCT	60	31	Football	Sportman's hernia and/or adductor tendinitis	12.5	Surgical laparoscopic hernia repair with or without an adductor tenotomy (LR)	Exercise therapy (ET)	12	LR: 97% + ET: 50%	LR: 97% + ET: 50%	21
Topol et al. (2005)	PCS	24	25	Rugby	Osteitis pubis and/or adductor tendinopathy	15.5	Dextrose injections painful sites	NA	17.2	85%	92%	16
Mei-Dan et al. (2013)	RCS	140	23	Football	Chronic groin pain with or without lower abdominal pain	5	Surgical adductor tenotomy with or without laparoscopic hernia repair	NA	NL	80%	NL	12
Biedert et al. (2003)	RCS	24	25.8	Football	Chronic symphysis syndrome	17	Surgical rectus abdominis and/or adductor tenotomy	NA	79.2	85%	96%	11
Topol and Reeves (2008)	PCS	72	NL	Rugby	Chronic groin/abdominal pain	11	Dextrose injections adductors	NA	26	80%	92%	11
Meyers et al. (2000)	RCS	157	NL	Football	Lower abdominal pain syndrome or inguinal pain	14.4	Surgical reattachment rectus abdominis with or without adductor release	NA	46.8	95%	95%	9
Martens et al. (1987)	RCS	81	26.3	Football	Adductor tendinitis and/or	10	Surgical adductor and/or rectus abdominis tenotomy	NA	24	88%	NL	8

					rectus abdominis tendopathy							
Dojcinovic et al. (2012)	PCS	99	23.9	Football	Sportsman's hernia and/or adductor tendinosis	NL	Surgical open hernia repair with neurectomy and with or without adductor release	NA	12	96%	97%	7
Brown et al. (2008)	RCS	98	27.1	Ice hockey	Intractable lower abdominal and groin pain	NL	Surgical external oblique repair with neurectomy of the ilio-inguinal nerve	NA	NL	99%	99%	4
Garvey and Hazard (2013)	CCT	66	33	NL	Multiple diagnoses related to groin pain	NL	Surgical treatment (various) (ST)	Standard physical therapy and corticosteroid injection (PT)	156	ST: 94% ¥ PT: 93%	ST: NL PT: NL	2

RCT = Randomised Controlled Trial, PCS = Prospective Case Series, RCS = Retrospective Case Series, N = Number, NA = Not Applicable, NL = Not Listed. † = significant improvement in favour of treatment group, ¥ = no significant difference in outcome between treatment groups