

Sportsman's Hernia

A treatable entity



What is a sportsman's hernia?



Probably:

- ◆ Conjoined tendon tear
- ◆ Transversalis tear



Previous descriptions

- ◆ Gilmore's groin 1992:

- ◆ groin disruption

 - ◆ Ext oblique

 - ◆ Conjoined tendon

 - ◆ Dehiscence inguinal ligament and conjoined tendon

- ◆ Clinical diagnosis based on symptoms and physical findings



Gilmore's groin

- ✦ Chronic pain in inguinal region-22w
- ✦ Often also adductor origin pain
- ✦ Onset gradual; 28% specific injury
- ✦ Dilated superficial inguinal ring, cough impulse and tenderness (only 75% tender) (?where)
- ✦ Associated adductor injury "refractory"

Gilmore's groin

- ◆ Transversalis fascia plicated
- ◆ Conjoined tendon repaired
- ◆ Nylon darn- tendon to ligament
- ◆ External oblique repaired



Other names

- ◆ Athletic hernia
- ◆ Sport's hernia
- ◆ Pubalgia
- ◆ Soccer players' groin
- ◆ Hockey groin syndrome



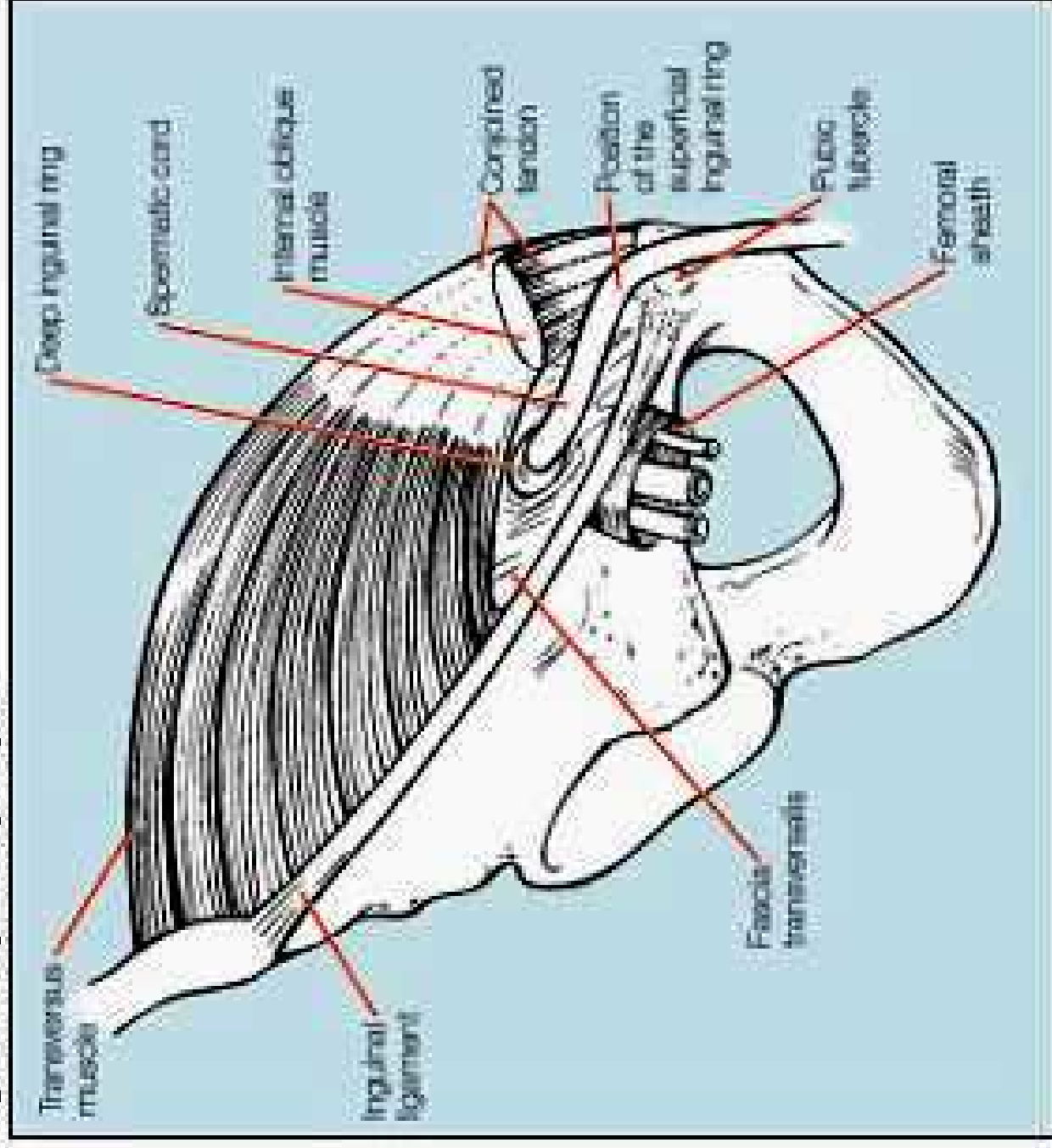
Differential diagnosis

- ◆ Nerve entrapment
- ◆ Adductor strain
- ◆ Rectus abdominis strain
- ◆ Osteitis pubis
- ◆ Lumbosacral/hip/sacroiliac aetiologies

Gary Stone criteria

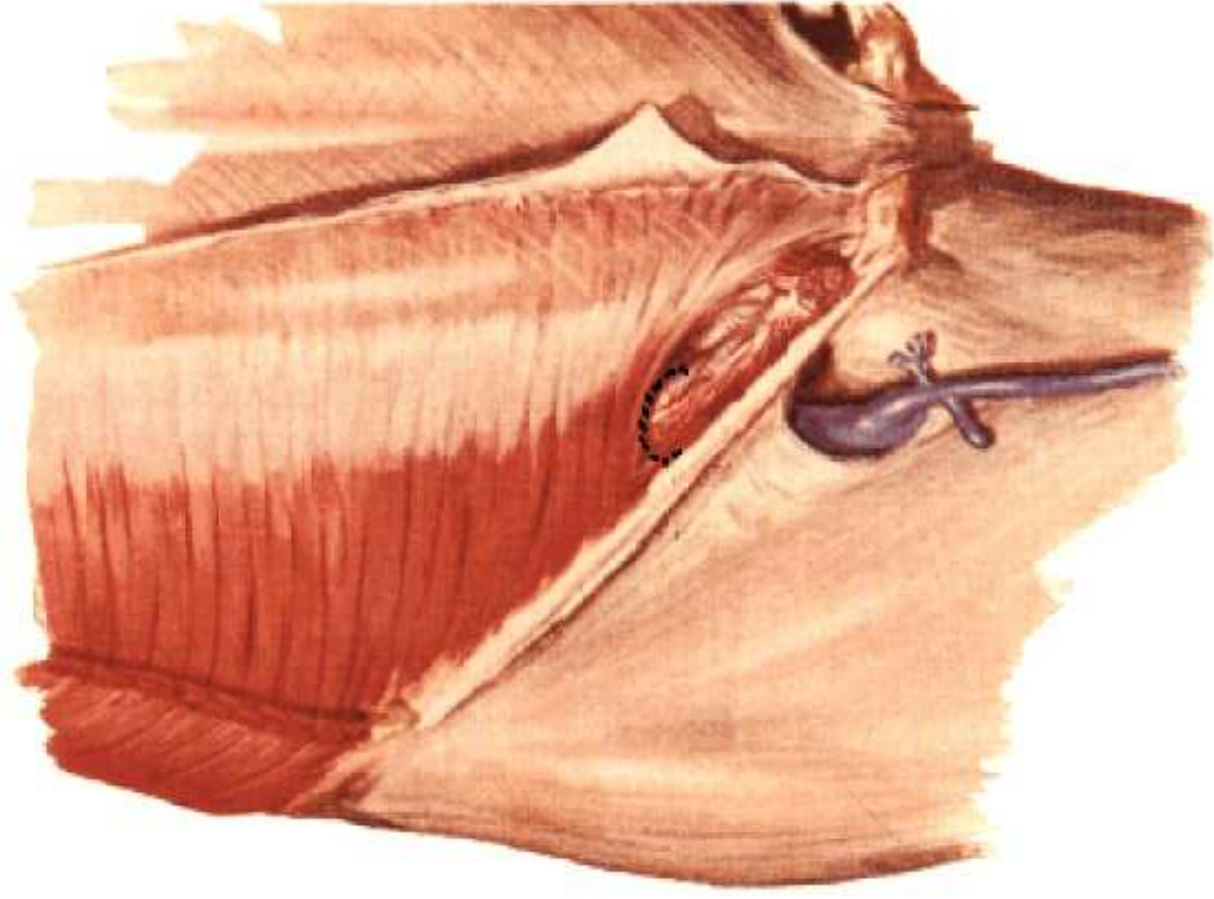
- ✦ Chronic inguinal pain (6 months)
- ✦ Other pathology excluded
- ✦ Refractory to other treatment
- ✦ Tender specifically over conjoined tendon
- ✦ Severe disruption to career/lifestyle

Figure: Mary Albury-Noyes



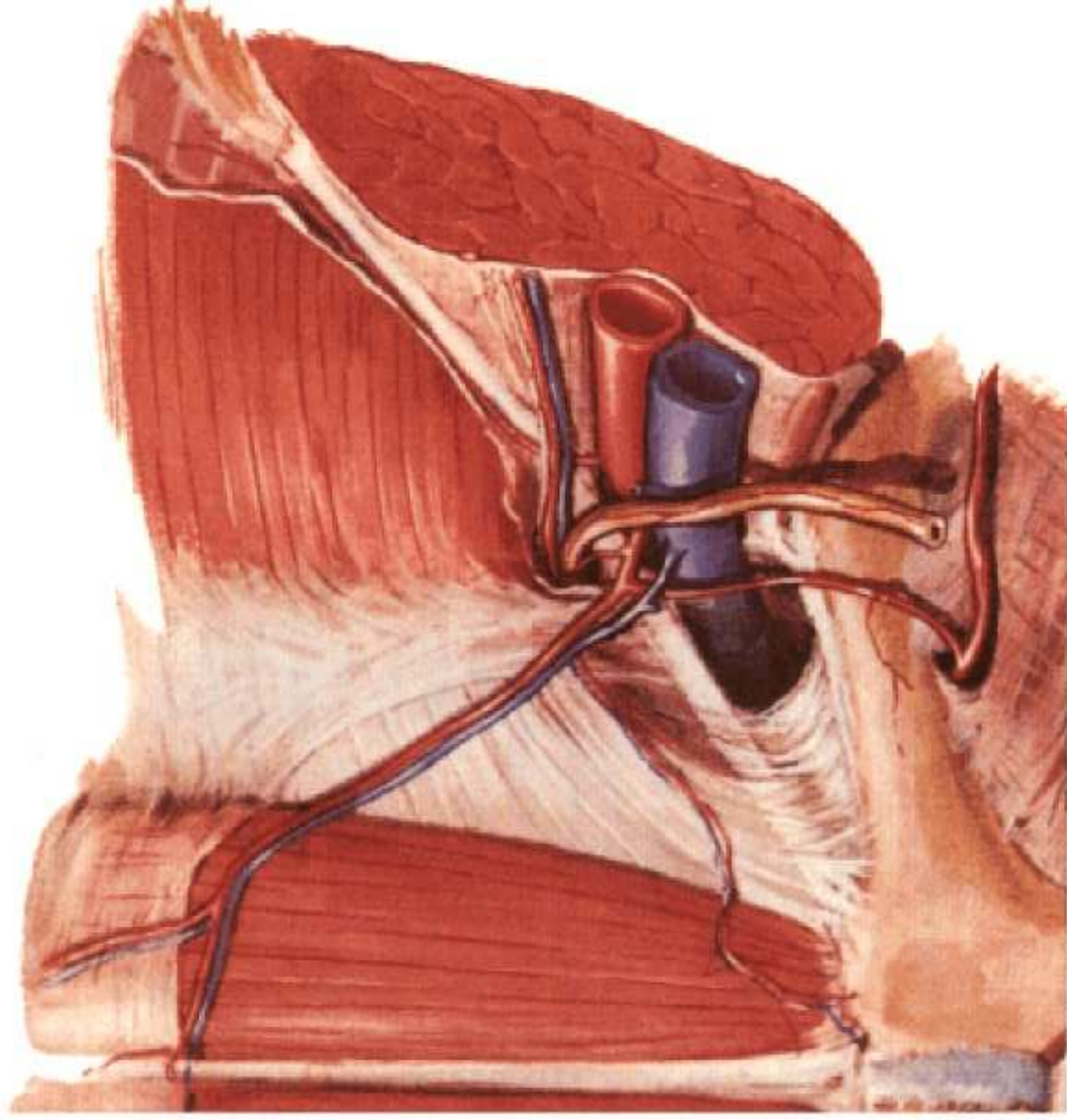
Inguinal and Femoral Regions

Cribriform Fascia Removed



Inguinal Region

Dissection - Posterior [Internal] View



Investigations

- ◆ X-ray

- ◆ U/S

- ◆ Bone scan

- ◆ MRI

- ◆ Herniogram



Laparoscopic repair sportsman's hernia

- ◆ 36 consecutive cases
- ◆ 1992-2005
- ◆ Laparoscopic inguinal hernioplasty
 - 2 transperitoneal
 - 34 extra-peritoneal



Patient data

- ◆ All men
- ◆ Median age 33
- ◆ Referral sports medicine 29
GP 7



Presenting complaint



◆ Unilateral groin pain	24
◆ Bilateral groin pain	4
◆ Groin and other	4
◆ Groin and spreading	2
◆ Lower abdomen	2

usually vague pain, but not at rest

Presenting complaint

- ◆ Sudden onset 22
- ◆ Sudden and gradual deterioration 5
- ◆ Gradual onset 9



Activities precluded



◆ Running	14
◆ Coughing	10
◆ Walking	5
◆ Lifting	5
◆ Sport	5
◆ Turning over in bed	4

Examination findings



◆ Conjoined tenderness	14
◆ Bilateral conjoined tenderness	6
◆ Conjoined and other	4
◆ Hasselbach's tenderness	2
◆ Bilateral Hasselbach's	2
◆ Cough impulse	2
◆ Internal ring tenderness	3

Examination findings

◆ Unilateral tenderness	27
◆ Bilateral tenderness	9



Length of history

- ◆ Median 3.5 months
- ◆ Mean 7.6 months



Investigations

◆ X-ray	17
◆ Bone scan	15
◆ U/S	13
◆ MRI	4
◆ Nil	3



Prior treatment

◆ Prednisone	7
◆ Physiotherapy	20
◆ Steroid injection	5
◆ Rest	all



Length of history

⚡ Time from injury to surgery

median

8 months

mean

10.1 months



Sports

🏆 Soccer 10

🏆 Rugby 9

🏆 Running 5

🏆 Golf 2



Hospital stay

🏆 Median 1 night



Follow up

◆ Median	42 months
◆ Mean	43.1 months
◆ Range	1-120 months



Operation findings

◆ NIL	13
◆ Small lipoma	8
◆ Bulge	6
◆ Moderate/large lipoma	4
◆ Indirect sac	2
◆ Contralateral indirect hernia	2

Recovery

- ◆ Return to physical activity

median

1 week

- ◆ Return to sport

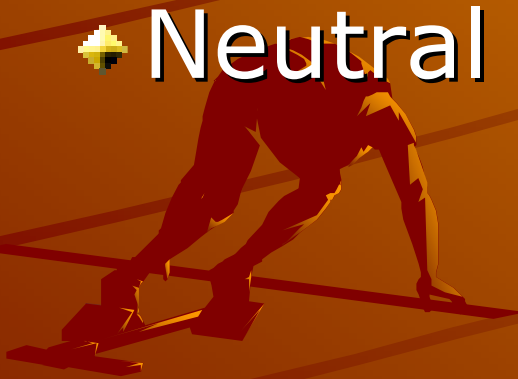
median

4 weeks



Patient satisfaction

✦ Excellent	22
✦ Good	9
✦ No better, relapse	4
✦ Neutral	1



Patient satisfaction

✦ Glad you had the operation?

Yes	32
No	3
neutral	1



Long term pain levels

🏆 No Pain	22
🏆 A little pain	10
🏆 Still in pain	4



Subsequent treatment



◆ Further groin surgery	1
◆ Hip surgery	1
◆ One side relieved only	1
◆ Pain returned after 4 years	1
◆ Hamstring pain	1

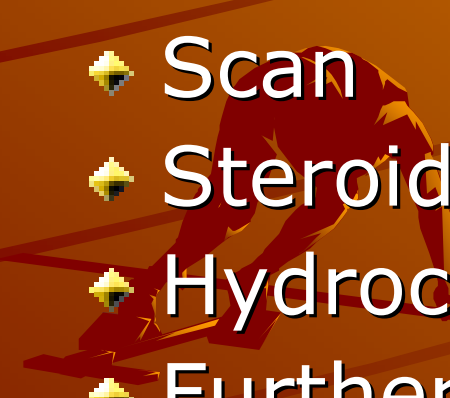
Complications

✦ Hydrocele 2

✦ Tack pain 2



Further treatment



◆ Nil	23
◆ Physio	6
◆ Hip surgery	1
◆ Groin surgery	1
◆ Scan	1
◆ Steroid injection	1
◆ Hydrocele repair	1
◆ Further consultation	1
◆ Not known	1

Treatment success

◆ Excellent/good	89%
◆ No better/relapse	11%



Conclusions

- ◆ Successful, durable, efficient treatment for intractable chronic groin pain
- ◆ Last resort
- ◆ Careful informed consent
- ◆ Diagnose with sports medicine
- ◆ Beware associated pain, bilateral

