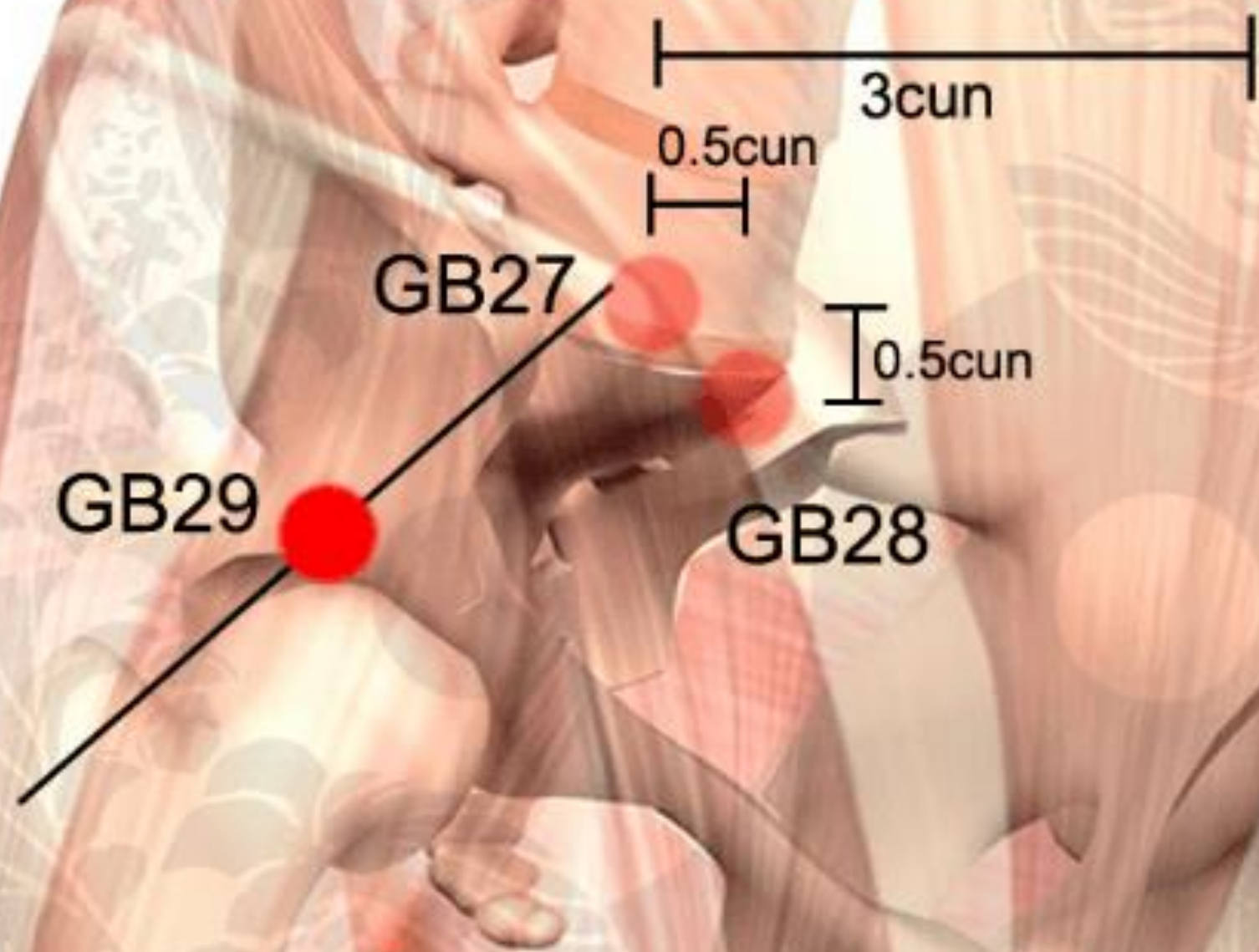


Hip Flexor, Hip Adductor & Knee Extensor

GB-29 JuLiao Squating Bone Hole

- Tensor Fascia Latae
- 居髎在章門下八寸三分，監骨上陷者中，陽蹻，足少陽之會，刺入八分，灸三壯
- Systematic Classic: GB-29, 8 cun 3 fen below LV-13, in depression above the supervising bone, meeting point of YangQiao and Foot ShaoYang channels, puncture 8 fen, moxa 3 cones.
- **Comment:** the Chinese for this point is Ju Liao (居髎) for Squatting Bone-Hole. In the Systematic Classic, only the character Ju was given for this point, possibly due to missing text.
- Ju means Residence. The supervising bone (監骨) is probably the greater trochanter of the femur.



Gluteus maximus m

● GB 29

Tensor fasciae latae m

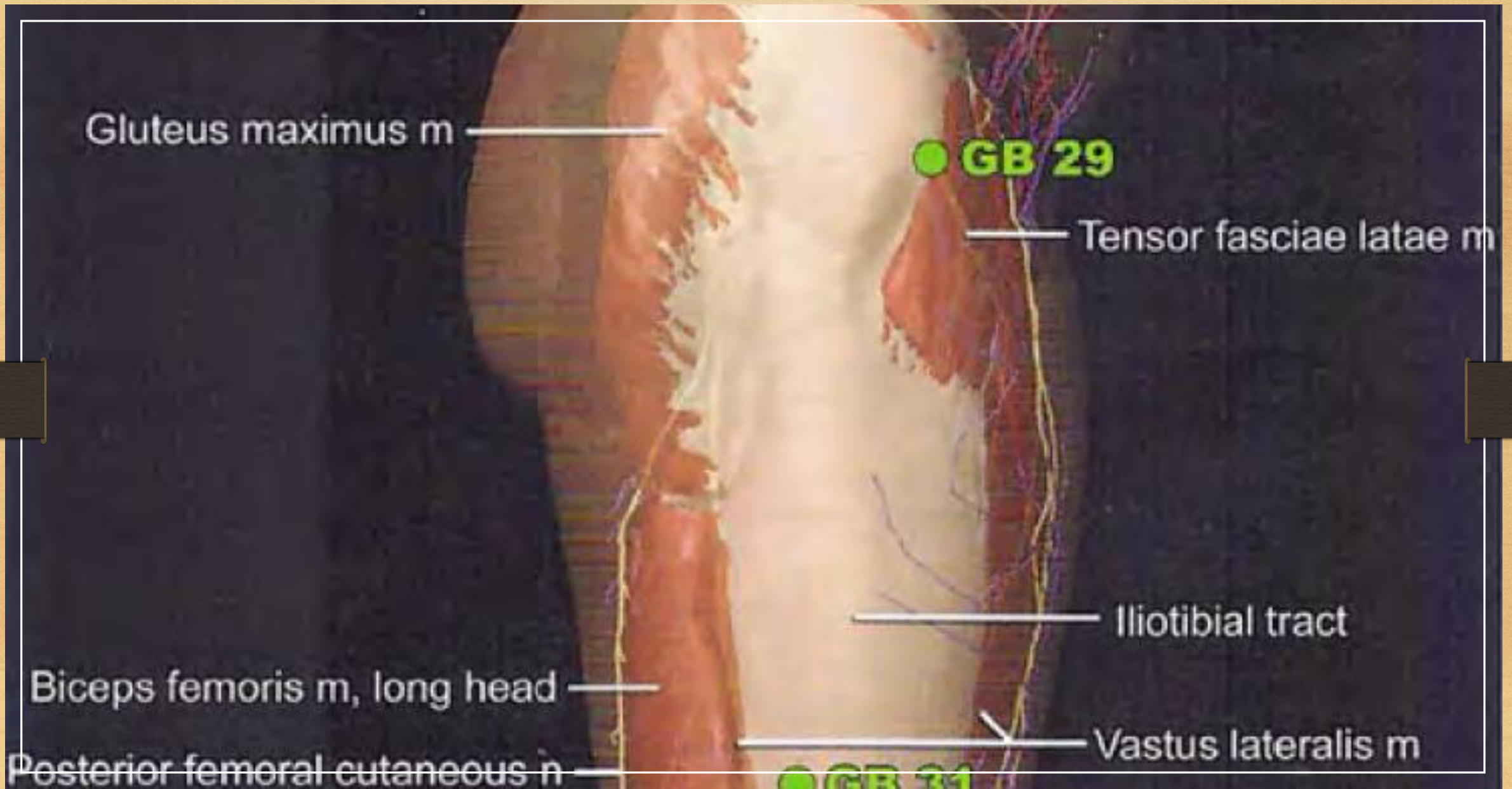
Iliotibial tract

Biceps femoris m, long head

Posterior femoral cutaneous n

Vastus lateralis m

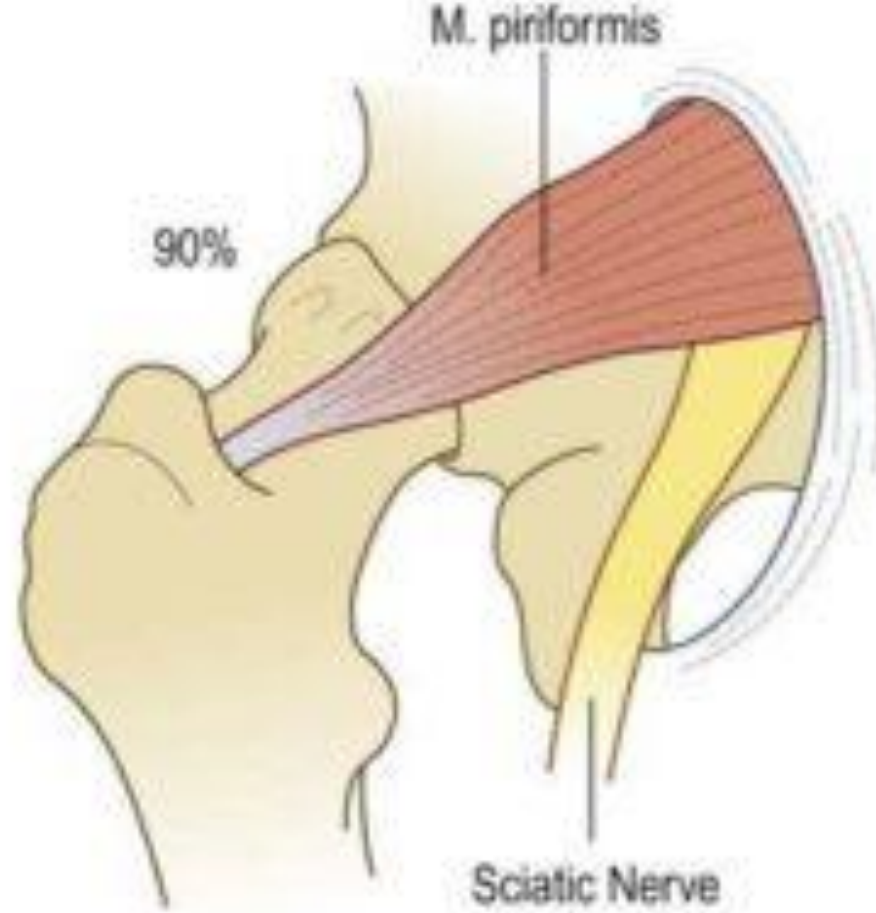
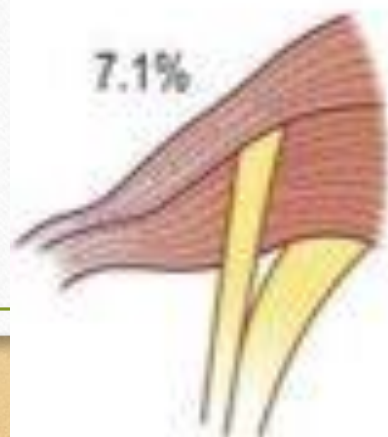
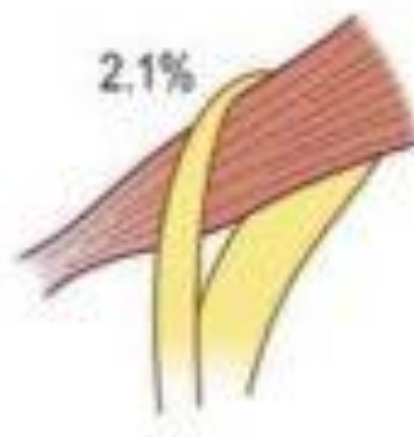
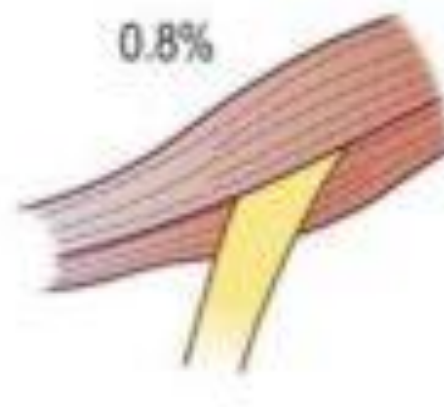
● GB 34



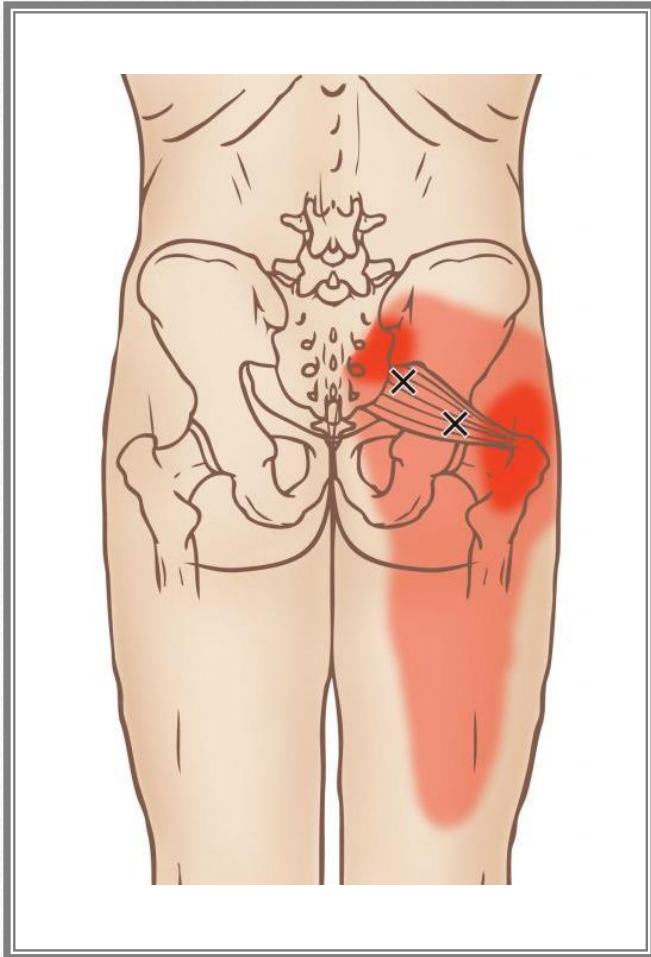
GB-30 HuanTiao

Jumping Round

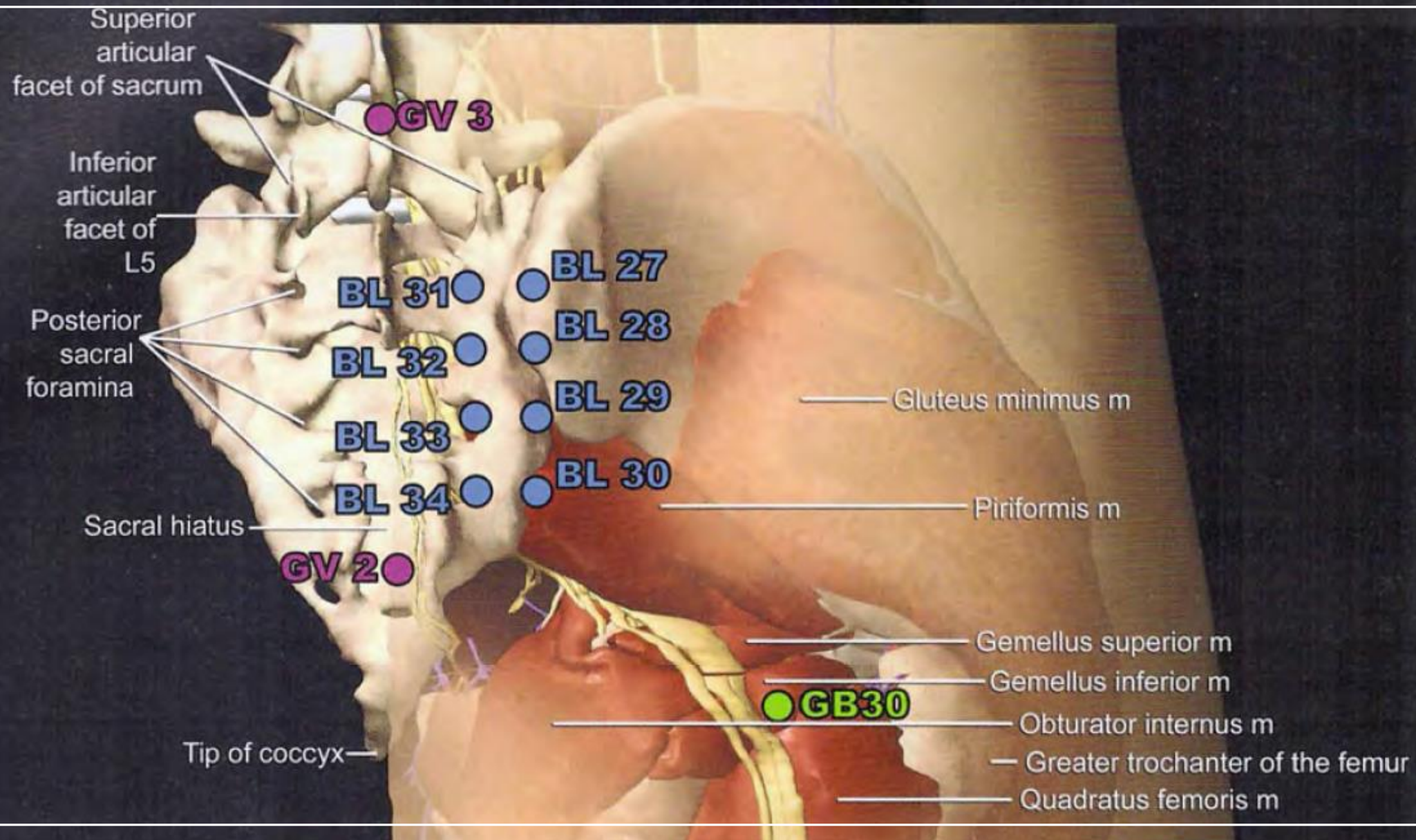
- Piriformis (deep to Gluteus Maximus)
- 環跳，在髀樞中，側卧伸下足，屈上足取之，足少陽脈氣所發，刺入一寸，留二十呼，灸五十壯。
- Systematic Classic: GB-30, in the thigh pivot, lie sideways straighten the bottom leg, bend the top leg, where the Foot ShaoYang channel Qi issues, puncture 1 cun, retain 20 exhalations, moxa 50 cones.
- **Comment:** The thigh pivot is the hip joint. To stimulate the Sciatic Nerve, needle below the Piriformis.



Trigger Point



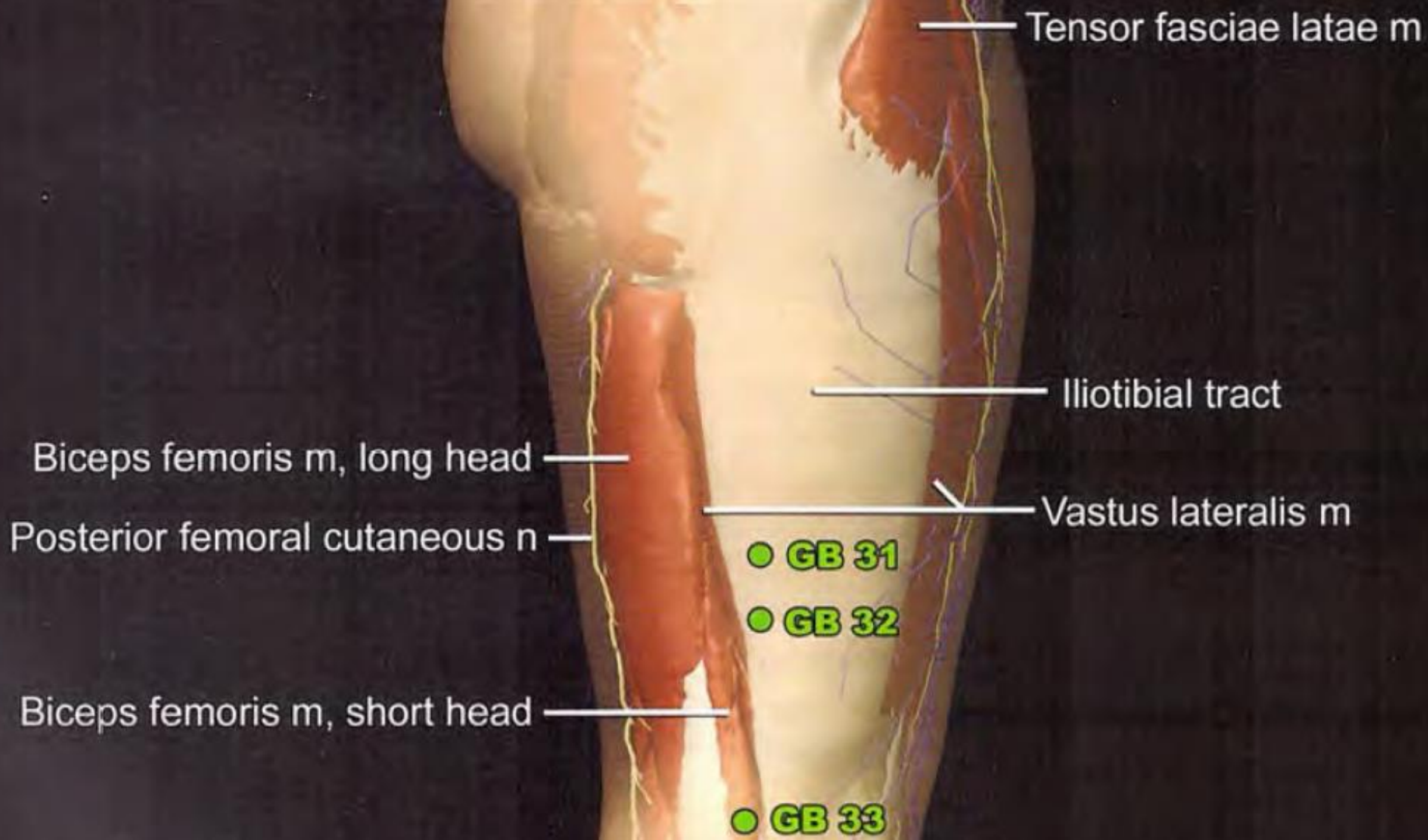
- When we observe the trigger point of piriformis muscle it will produce sciatic nerve pain.
- Later trigger point will produce later thigh pain and medial is more likely to produce posterior thigh pain

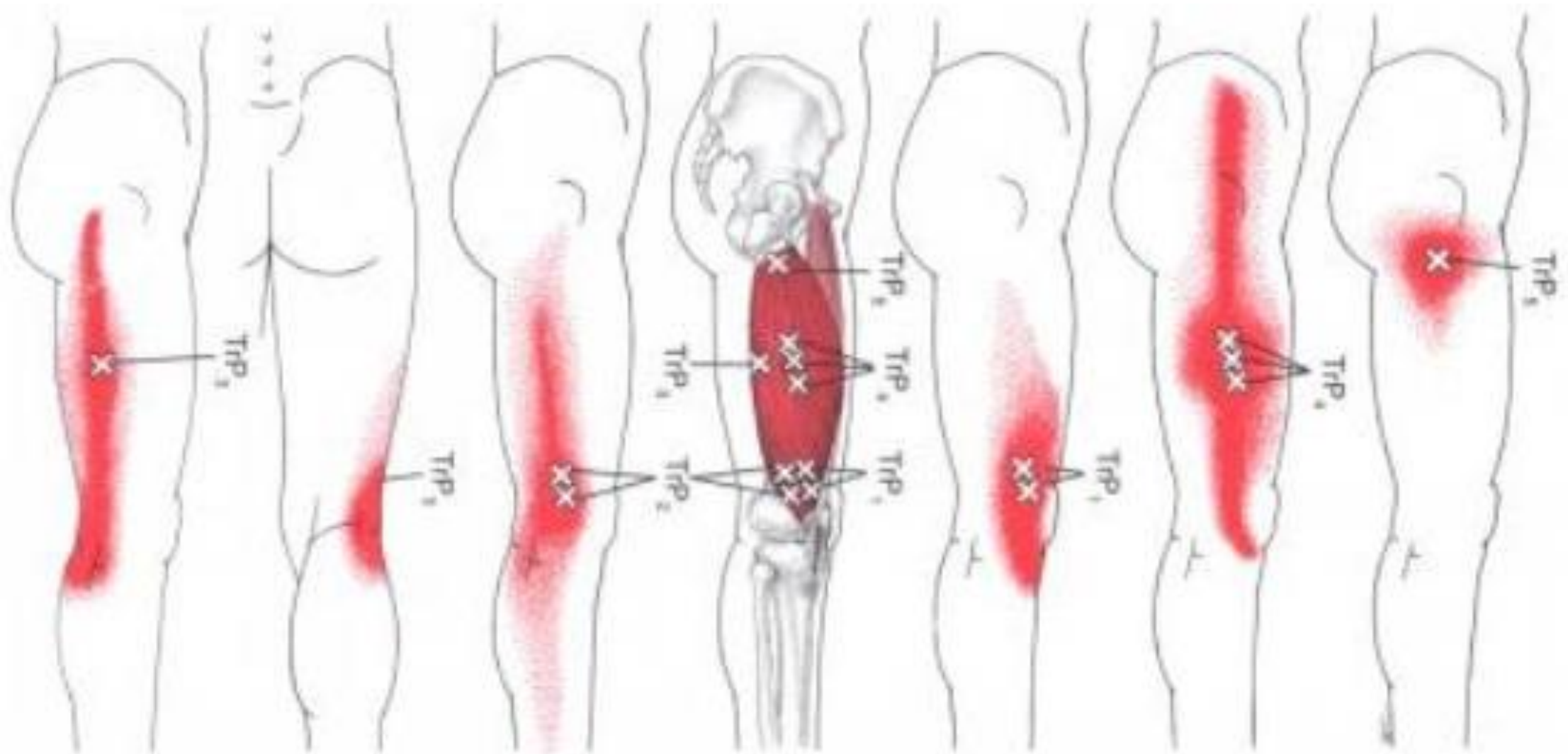


GB-31 FengShi Wind Market

- 風市，膝上外廉兩筋中，以手著腿，中指盡處是
- Great Compendium: GB-31, above the knee on the outer/lateral surface between 2 sinew, with hand touch the leg, at the limit of the middle finger.
- **Comment:** GB-31 first appeared in Ge Hong (Emergency Prescription behind the elbow.) Prior to Song Dynasty, it was considered a JinWaiQiXue (Extra-meridian Extraordinary Point). It wasn't until the Qing dynasty that GB-31 became a standard point of the Foot ShaoYang channel.

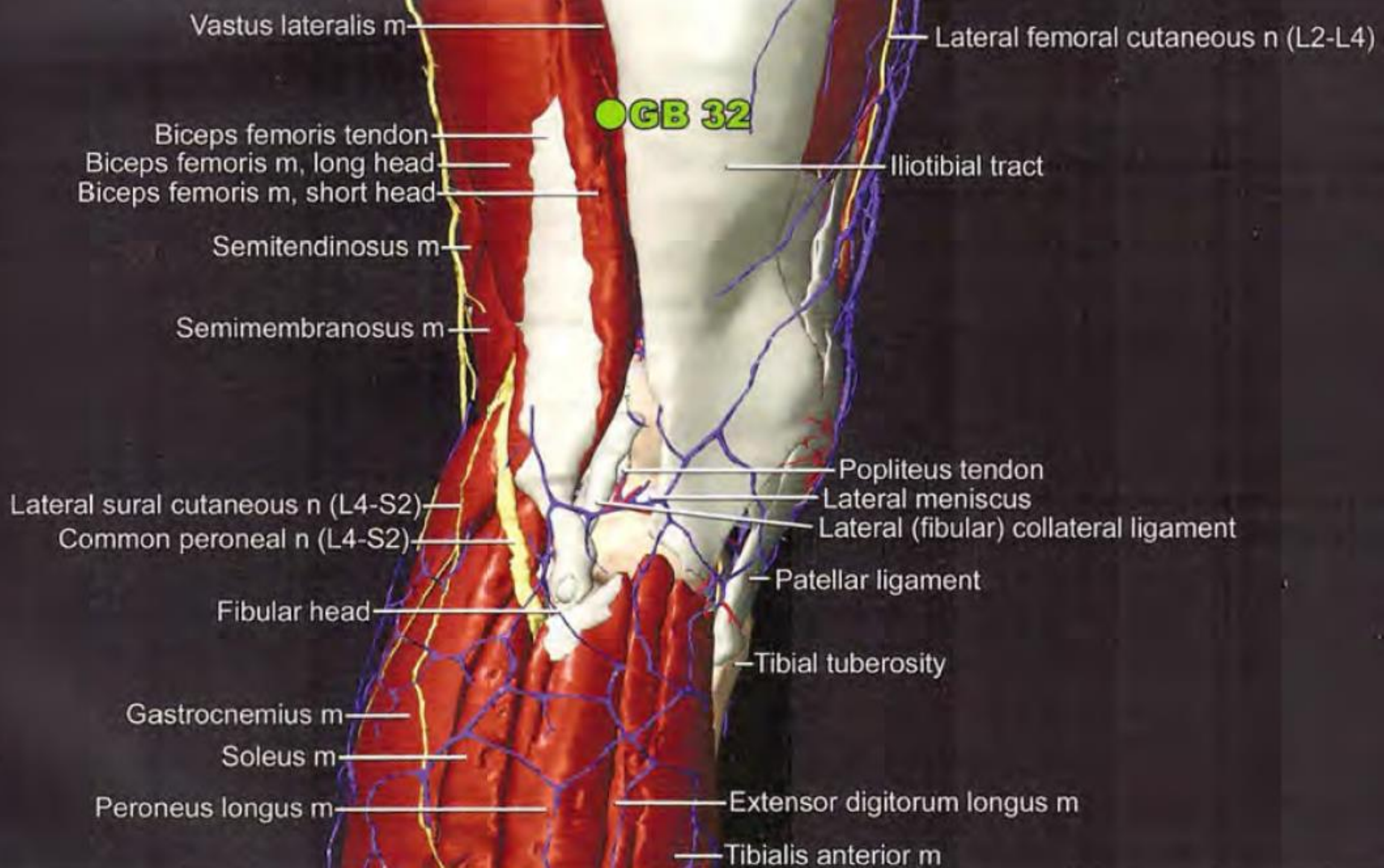
-
- We recommend assigning GB-31 as Bicep Femoris Long Head, as points on the ST channel (ST32) are already assigned to the Vastus Lateralis.
 - We don't think it is likely that the iliotibial band was the intended target for GB-31, as the band is not between 2 sinews as described by the Great Compendium and it is also a very tough structure to puncture.
 - As a tendon, the ITB has poor blood supply, hence acupuncture would not be expected to achieve much therapeutic outcome if GB-31 was intended to affect the ITB.
 - If the ancients intended the target for GB-31 to be Lateral Femoral Cutaneous Nerve that overlies this region, then it is already accounted for by GB-32, which unlike GB-31 is included in the Systematic Classic.





GB-32 ZhongDu Central River

- Sciatic Nerve (Lateral Approach)
- 中犢，在髀骨外，膝上五寸，分肉間陷者中，足少陽脈氣所發也，刺入五分，留七呼，灸五壯。
- Systematic Classic: GB-32, outside/lateral the thigh bone, 5 cun above the knee, in the depression between the sinew separation, where Foot ShaoYang Qi issues, puncture 5 fen, retain 7 exhalation, moxa 5 cones.
- **Comment:** The sinew separation is likely to be between the Bicep Femoris and the Vastus Lateralis. The ITB band is slightly anterior to this separation.



Clinical Connection

- At the knee, the ITB functions primarily as a lateral stabilizing ligament to the lateral hip and knee. The ITB performs a complex series of functions that aid in knee stabilization through both flexion and extension.
- Iliotibial band syndrome (ITBS) is considered the second leading cause of pain in runners. It has become the most common source of lateral knee pain. Female runners who develop this syndrome exhibit limb kinematics suggestive of increased stress placed on the iliotibial band.

Gluteus
Maximus

Tensor
Fascia Latae

Vastus Lateralis

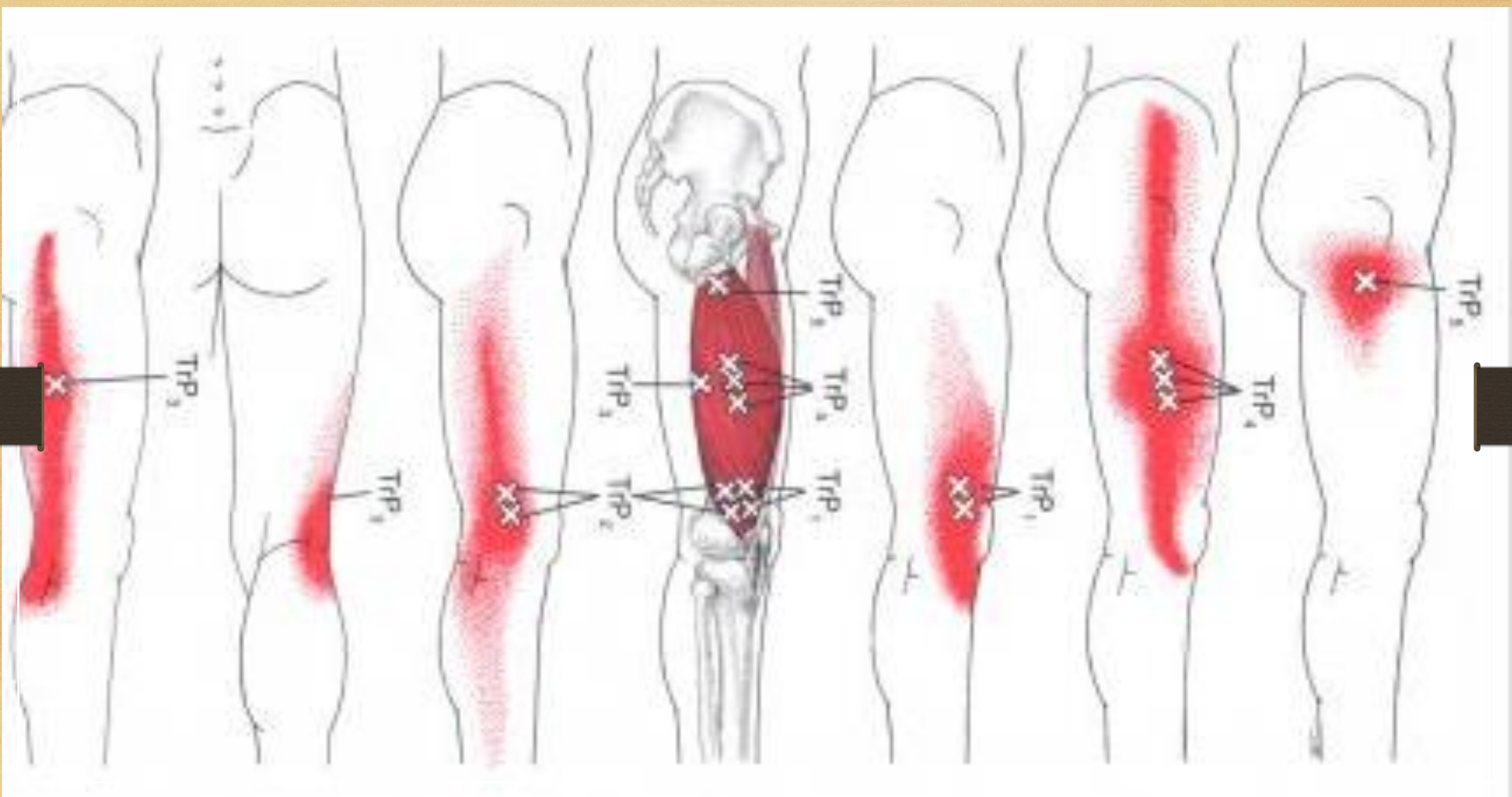
Iliotibial Band

Patella



-
- Pain in the hamstrings may cause patients to overload the quadriceps. Shortened hamstrings disrupt the biomechanical balance of walking and standing, promoting the spread and recurrence of trigger points in other muscles as weight is redistributed to compensate for unloading the painful muscle.
 - Five trigger point locations in the vastus lateralis have the potential to issue pain patterns along the entire thigh to the knee along the GB pathway.

-
- Superficial trigger points refer pain locally whereas deeper pathology produces deep pain that “explodes” in proximal and caudal directions. Pain typically worsens when lying on that side at night, interrupting sleep. The sense of having a “stuck patella” erupts from trigger points in the GB 32/GB 33 portion of the GB trajectory. These sites send pain toward the knee that may seem to enter into and through the knee.



GB-33 YangGuan Yang Gate

- Common Peroneal (Lateral approach)
- 陽關，在陽陵泉上三寸，犢鼻外陷者中，刺入五分，禁不可灸。
- Systematic Classic: GB-33, 3 cun above GB-34, in depression outside (lateral) to Calf's Nose (ST-35), puncture 5 fen, forbidden to moxa.
- **Comment:** We interpret GB-33 as posterior to the lateral condyle of the femur and anterior to tendon of Biceps Femoris. Perpendicular insertion from this location permits stimulation to the Common Peroneal Nerve. If the needle is inserted deeper, both the Common Peroneal and Tibial Nerves can be stimulated with a single needle.

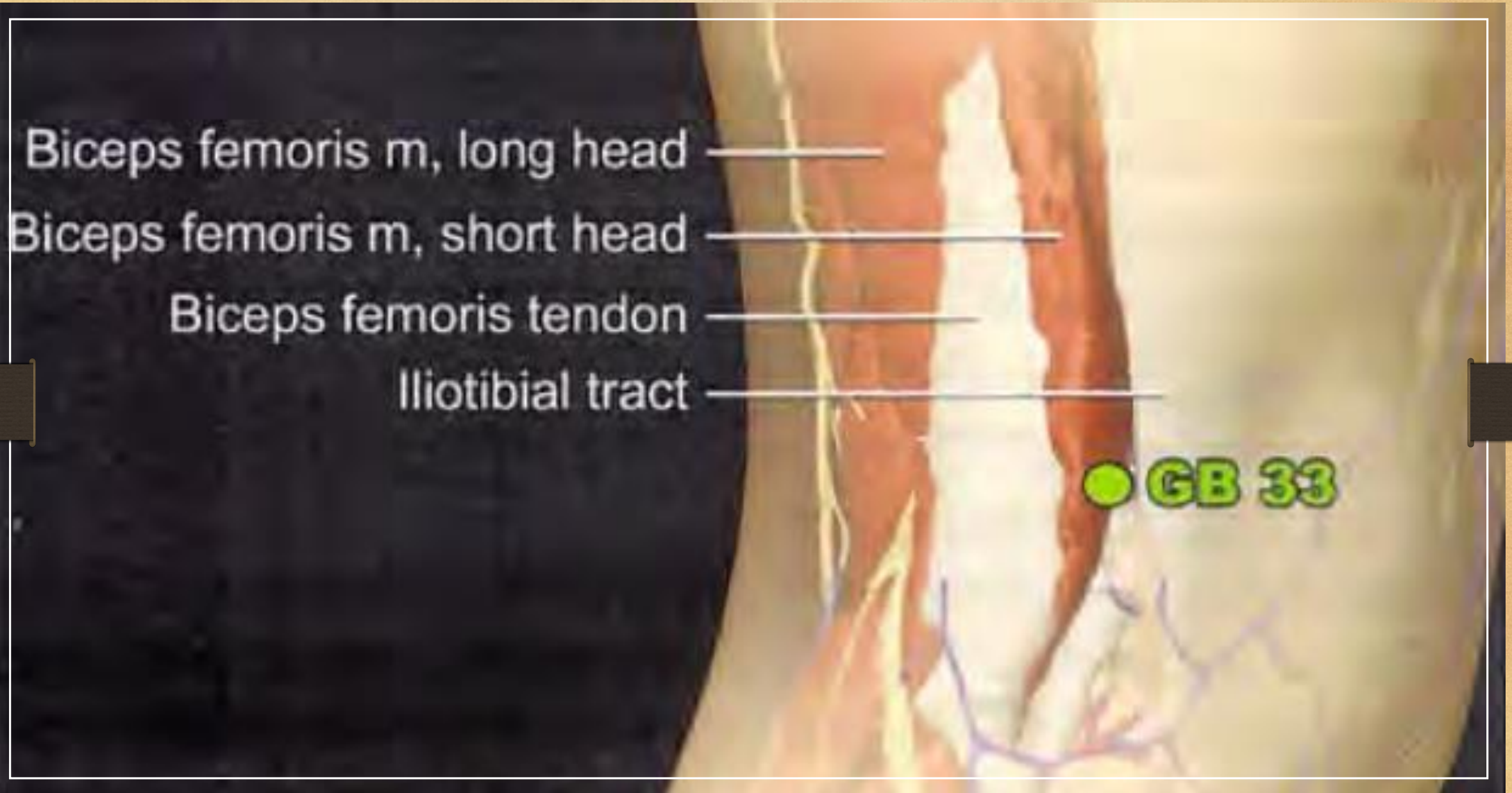
Biceps femoris m, long head

Biceps femoris m, short head

Biceps femoris tendon

Iliotibial tract

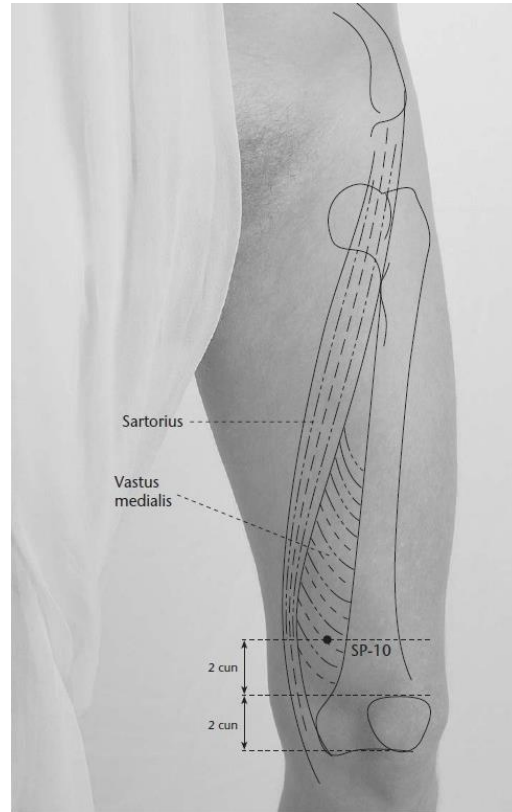
● GB 33



Clinical Relevance

- Pain in the hamstrings may cause patients to overload the quadriceps. Shortened hamstrings disrupt the biomechanical balance of walking and standing, promoting the spread and recurrence of trigger points in other muscles as weight is redistributed to compensate for unloading the painful muscle.
- Trigger points in the biceps femoris, as with other hamstring muscles, can cause the patient to limp; the pain of placing a load on these muscles may also inhibit muscle function and reduce hip stability. Trigger points in the vicinity of GB 33 could arise in either the short or long head of the biceps femoris muscle; pain refers strongly to the popliteal fossa and may extend down the entire caudolateral thigh .

SP-10 XueHai Sea of Blood



- Vastus Medialis MP1
- 血海，在膝膑上內廉白肉際二寸中，足太陰脈氣所發，刺入五分，灸五壯。
- Systematic Classic: SP-10, in the white flesh border 2 cun above the inner surface of the kneecap, where the Foot TaiYin Qi issues, puncture 5 fen, moxa 5 cones.

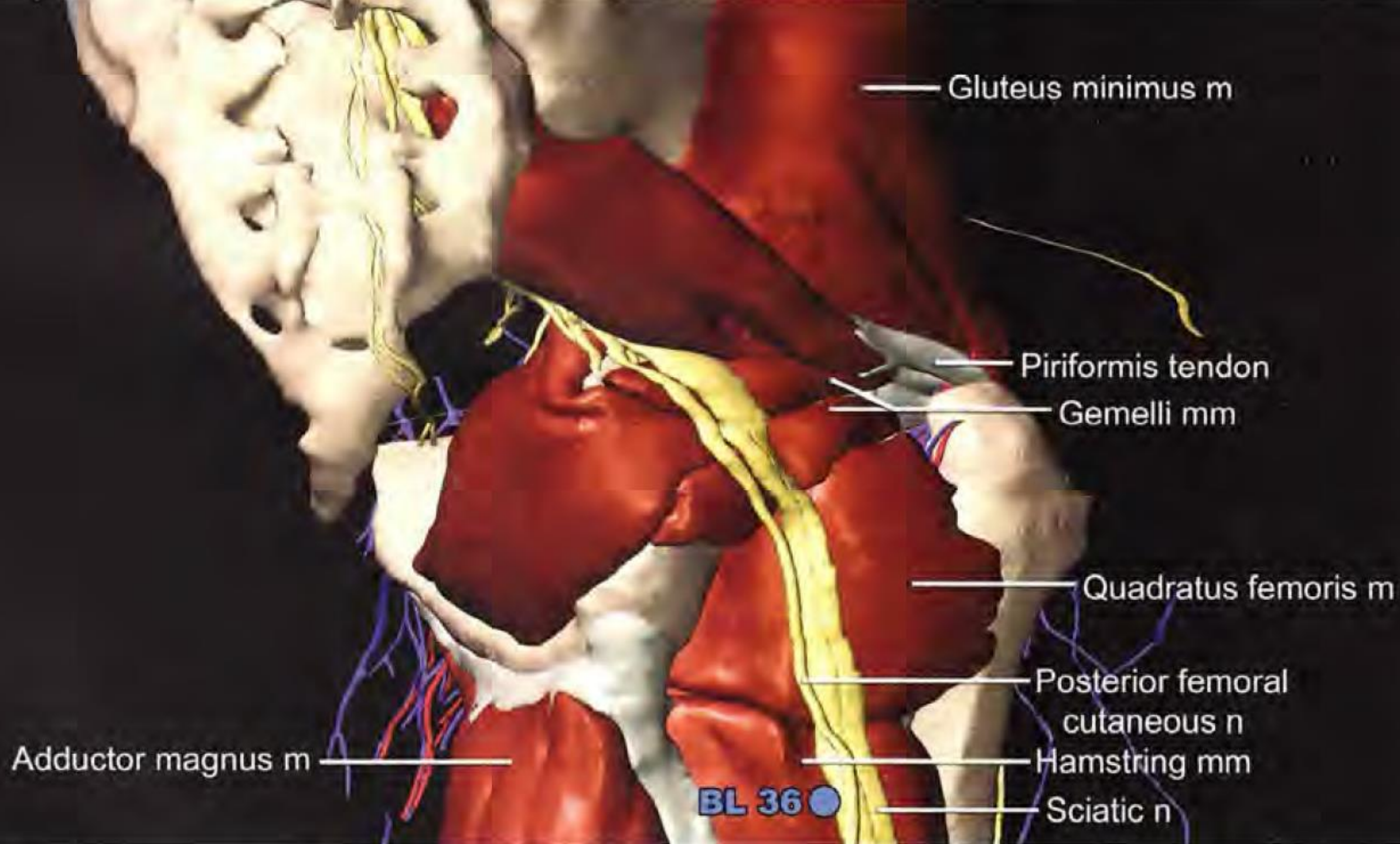
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- **Comment:** A. Botter et al. 2011 (Atlas of the muscle motor points of the lower limb: implication for electrical stimulation procedures and electrode positioning) identified a distal and proximal motor point for the Vastus Medialis with distribution within the region of SP-10 and BaiChongWo.

UB-36 ChengFu Support

- Inferior Cluneal Nerve (Gluteal Branch of PFCN);; Sciatic Nerve (deep)
- 承扶，一名肉，一名陰關，一名皮部，在尻臀下，股陰腫上約文中，刺入二寸，留七呼，灸三壯。
- Systematic Classic: UB-36, also know as Flesh, also know as Yin Gate, also know as Skin Region, below the sacro-buttock, in the crease [between] yin (inside) thigh and swelling above, puncture 2 cun, retain 7 exhalation, moxa three cones.

-
- **Comment:** It is interesting that one of the names for UB-36 given is PiBu, translated as Skin Region (皮部). The same characters are used in the title of Chapter 56 of the SuWen, PiBuLun, translated as Discourse on the Skin Region. The PiBuLun describe floating collaterals within the skin region. It is the author's opinion that this provides a hint that UB-36 is used to stimulate cutaneous nerves. Lateral to the ischial tuberosity, the Sciatic Nerve trunk is sufficiently superficial to be stimulated (This is known as the Raj technique in anesthesiology). UB-36 is also in the region superficial to the ischial tuberosity where the Biceps Femoris, Semitendinosus and Adductor Magnus muscles all attach.

-
- tension held in various muscles near BL 36 may aggravate the sciatic nerve and precipitate "sciatica", exemplified by its characteristic pain radiating from the back or hip to the lower leg or foot. Although distal needling at BL 36, BL 37, BL 40, and GB 34 can help, one Chinese study indicated that the most robust and rapid benefits result from proximal needling at GB 30.



UB-37 YinMen Gate of Abundance

- Descending Branch of Posterior Femoral Cutaneous Nerve
- 殷門，在肉下六寸，刺入五分，留七呼，灸三壯。
- Systematic Classic: UB-37, locate 6 cun below Flesh, puncture 5 fen, retain 7 exhalation, moxa 3 cones.
- **Comment:** Flesh (肉) is an alternate name of UB-36 (See above for translation of UB-36 in Systematic Classic).



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- Neuromodulation of the posterior femoral cutaneous nerve may assist in treating micturition disorders such as overactive bladder and urinary incontinence by dint of its ability to inhibit the micturition reflex through somatic afferent activation
 - Neuromodulation of the sciatic nerve is helpful for a variety of conditions caused by sciatic nerve damage, including piriformis syndrome, total hip arthroplasty, injury of the vasa nervorum to the sciatic, and trauma.

UB-38 FuXi Superficial Cleft

- Short Head of the Bicep Femoris
- 浮郄，在委陽上一寸，屈膝得之，刺入五分，灸三壯。
- Systematic Classic: UB-38, 1 cun above UB-39, obtained with knees bent, puncture 5 fen, moxa 3 cones.
- **Comment:** The Short Head of Bicep Femoris is between the tendon of the Long Head of the Bicep Femoris and IT Band, needled perpendicularly towards lateral condyle of femur. The Bicep Femoris (short and long heads) laterally rotates the knee when it is in flexion. Pointer Plus stimulation can be used to check for lateral rotation to confirm acquiring the correct target.



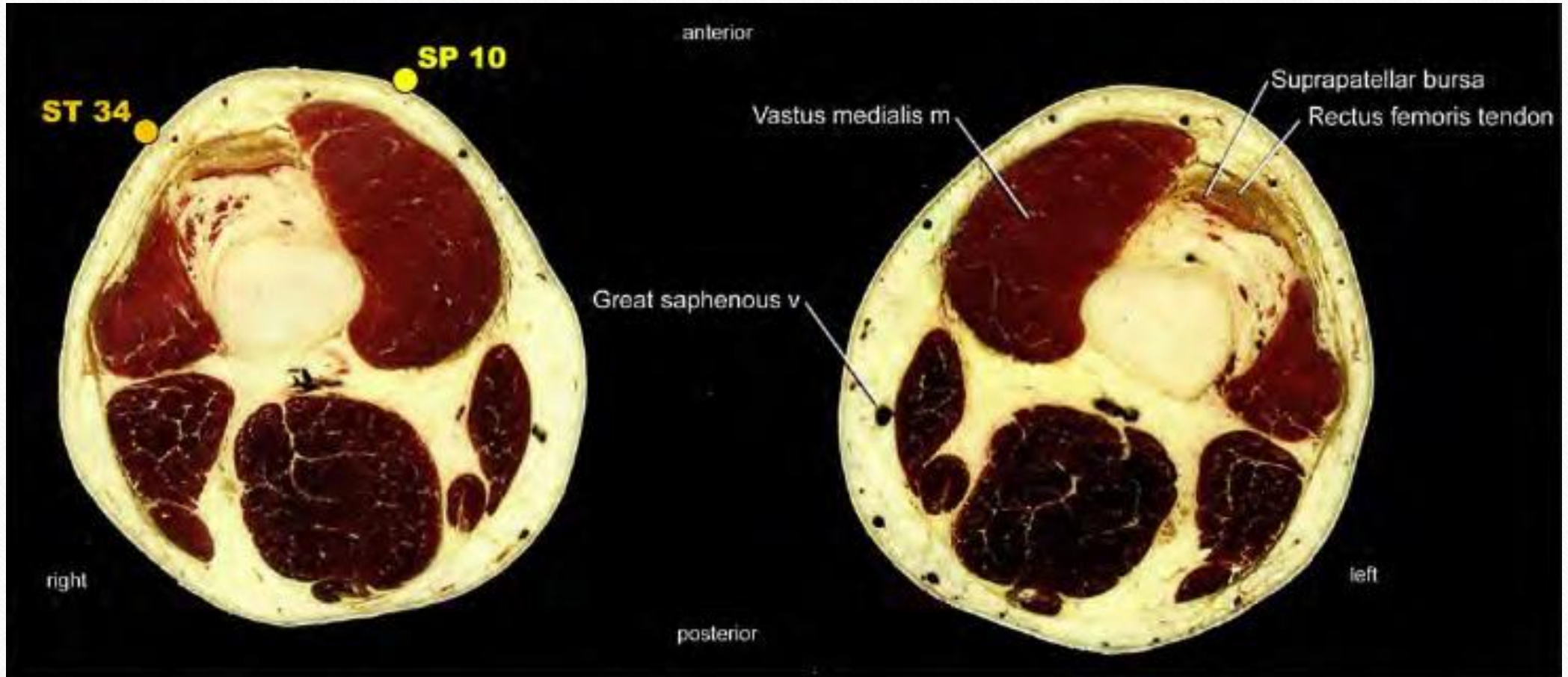
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- BL 38 falls in a depression formed by the biceps femoris muscle as it narrows into a tendon. Its name “Superficial Cleft” refers to this palpable valley as well as to the division of the sciatic nerve into the common fibular and tibial nerves.
 - One should consider neuromodulation of the spinal nerve roots contributing to the sciatic (L4-S3). The axon itself (GB 30 to **BL** 37), and its branches (common fibular and tibial), on down to the digital nerves of the foot.



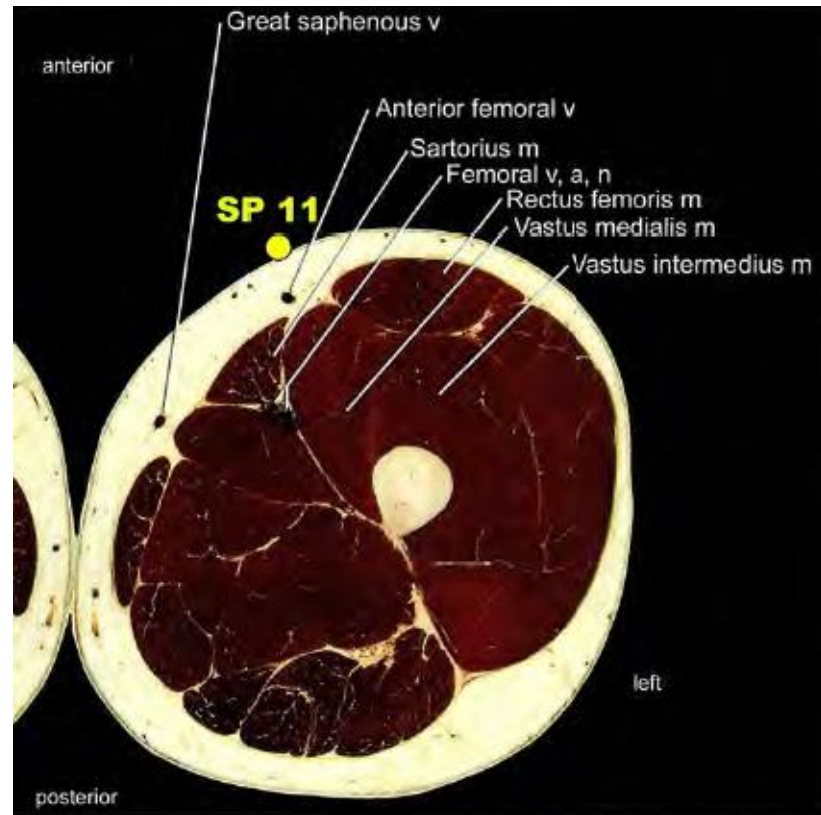
SP- 10 Xue Hai Sea of Blood

- Most sources indicate that the saphenous nerve is purely sensory. Various surgical procedures and traumatic events may injure it and compromise its function. Strenuous exercise may also negatively impact the nerve by causing a nerve entrapment. Sites where the saphenous nerve may become entrapped include

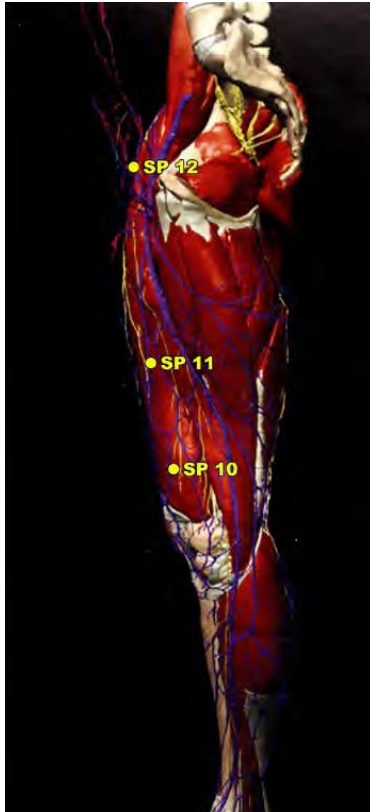
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- 1) The adductor canal where the saphenous nerve splits from the femoral and courses independently along the fascial channel through the adductor canal, and
 - 2) The locus where the nerve leaves the adductor canal to exit the fascial layer between the sartorius and gracilis muscles. Conceivably, neuropathy of the saphenous nerve can lead to persistent, medial knee pain. Palpating for myofascial restriction in the medial thigh may aid in determining the site of saphenous nerve compression or entrapment.



SP-11 JiMen Winnower Gate



- Medial Femoral Cutaneous Nerve
- 箕門，在魚腹上越兩筋間，動脈應手，太陰內部，足太陰脈氣所發，刺入三分，留六呼，灸三壯。《素問》三部九候論註云：直五里下，寬鞏足單衣，沉取乃得之，動脈應於手。
- Systematic Classic: SP-11, located between two sinews above the Fish Abdomen, pulsating vessel can be felt, TaiYin inner region, where Foot TaiYin issues, puncture 3 fen, retain 6 exhalation, moxa 3 cones.



- Comment: The two sinews described by the Systematic Classic are likely to be the Vastus Medialis and Sartorius. The pulsating vessel likely refers to the Femoral Artery located within the Adductor Canal. The TCM location for SP-11 is 6 cun superior to SP-10. The Systematic relies on palpating the Femoral Artery to locate SP-11. The distal branch of the Medial Femoral Cutaneous Nerve innervates the medial aspect of the skin over the knee (G Horner & AL Dellon, Innervation of the Human Knee Joint and Implications for Surgery. Clinical Orthopedics and Related Research, 1996 301:pp221-6).

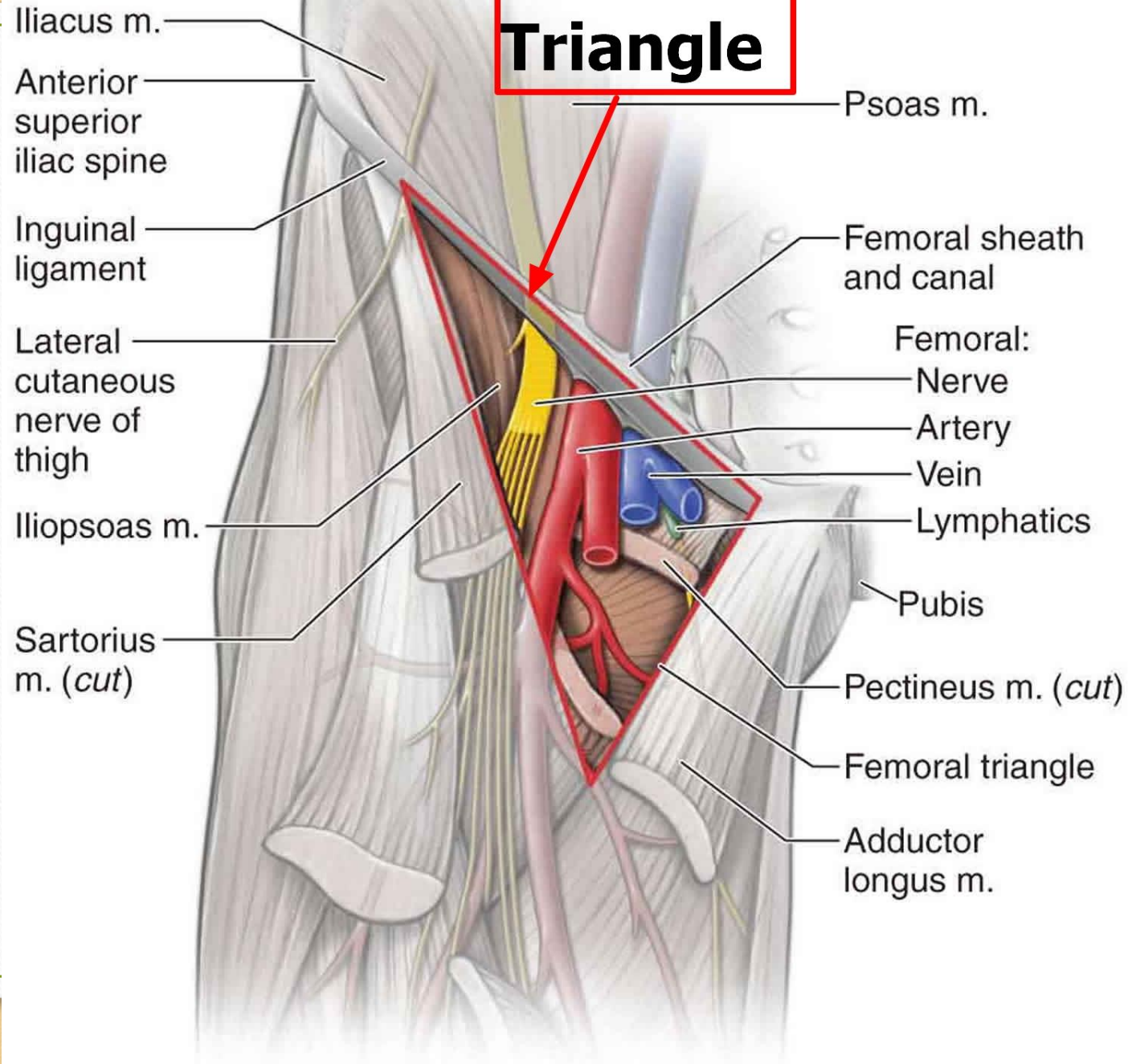
SP-12 ChongMen Surging Gate

- Femoral Nerve
- 衝門，一名慈宮，上去大橫五寸，在府舍下，橫骨兩端約文中動脈，足太陰、厥陰之會，刺入七分，灸五壯。
- Systematic Classic: SP-12, also called Compassionate Palace, 5 cun from SP-15 above, below SP-13, in pulsating vessel in the bundled marking on the two ends of the horizontal bone, meeting of Foot Taiyin, JueYin, puncture 7 fen, moxa 5 cones.

- **Comment:** Bundle marking means the skin crease, in this case the inguinal fold.
- In the Systematic Classic, the SP channel on the abdomen is 3.5 cun lateral to the Ren Mai, unlike 4 cun in modern TCM.
- The Surging Gate reference to the pulsation of the Femoral Artery. The Femoral Nerve is lateral to the Femoral Artery, best located with the knees bent and leg open in the frog leg position.

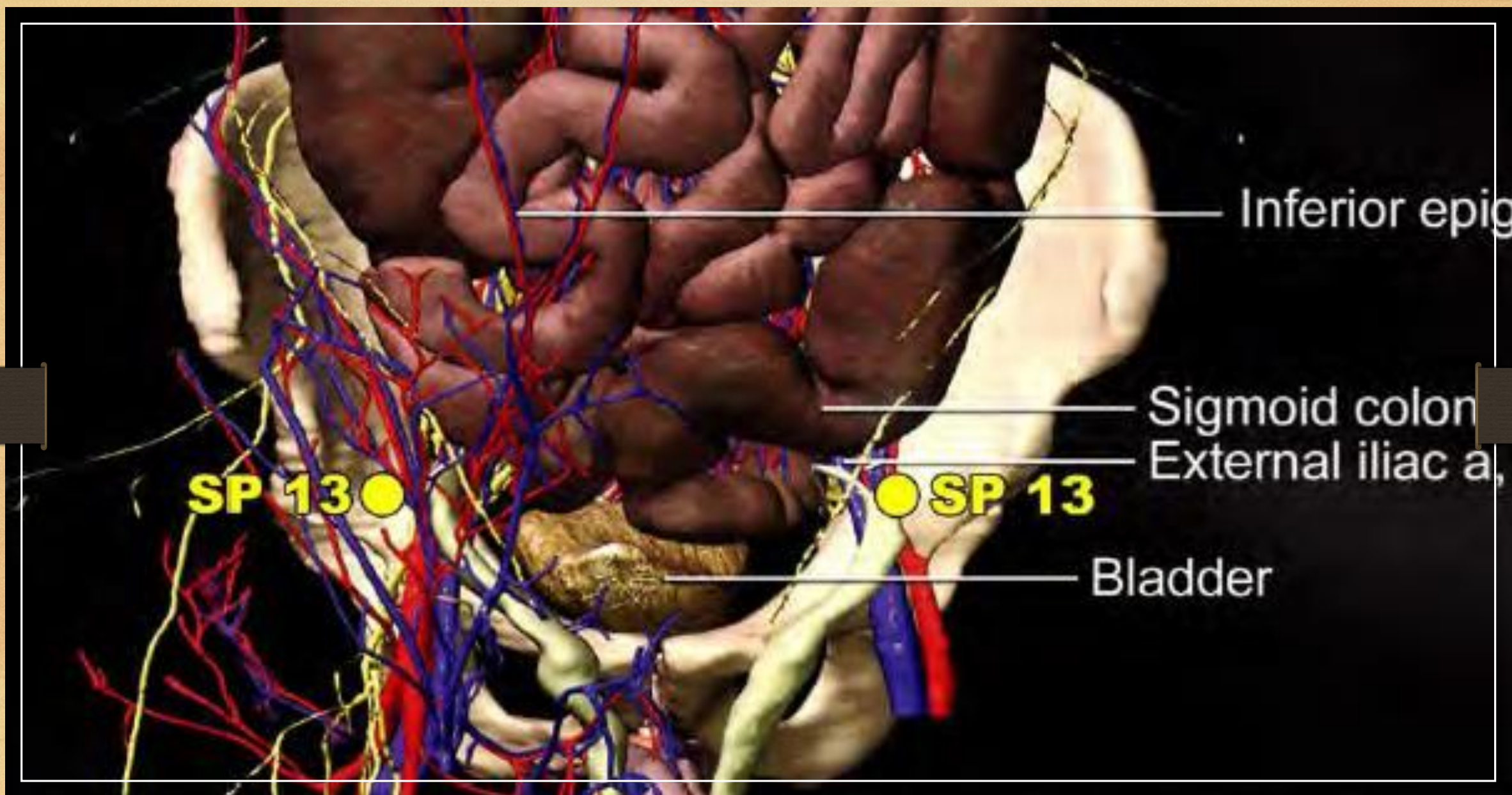


Femoral Triangle



SP-13 FuShe Bowel Abode

- Iliacus
- 府舍，在腹結下三寸，足太陰、陰維、厥陰之會，此脈上下入腹絡胸，結心肺，從脅上至肩，比太陰，三陰陽明支別，刺入七分，灸五壯。
- Systematic Classic: SP-13, 3 cun below SP-14, meeting of Foot TaiYin, YinWei, JueYin, this channel enters the abdomen vertically networking the chest, binds heart and lungs, from the side ribs reach up to the shoulder, this TaiYin, branch divergence of Three Yin and YangMing, puncture 7 fen, moxa 5 cones.



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- Acupuncture stimulation of nerves supplying SP 13, like SP 12, influences pelvic organ function through cutaneovisceral, spinal segmental, and myofascial relationships and connections.