

前膝痛 及治療

髌股綜合症與髌骨滑行動偏歪相關
它是前膝痛的一個常見的原因



當妳上、落樓梯或從椅子起來時，妳有否留意前膝有痛或響聲？如果你有這些症狀，即顯示妳可能有髌股綜合症(前膝痛)。研究顯示當髌骨長間在股骨槽內偏歪滑動，可導致前膝退化性關節炎⁶。因此在毛病的初期便應該採取積極的治療。



甚麼是髌股綜合症？

髌股綜合症與髌骨滑行動偏歪相關；它是前膝痛的一個常見的原因。在美國，在1000人中每一年有22個人患有前膝痛。它特別影響年青體力活動較多的群組(13-15歲)¹、30-50歲的女性和上了年紀的群組(50-70歲)。通常患者都沒有創傷的病歷。

髌股綜合症的成因

髌股綜合症的成因很多。最近的研究指出髌關節外旋肌軟弱無力可能引起前膝痛。在人類，髌關節和它週圍的肌肉在下肢的運動，諸如跑步扮演一個重要的角色。髌關節外旋肌軟弱令下肢內旋。這會影響膝關節的運動和拉傷肌肉⁵，增加髌骨與股骨之間的壓力，從而引起前膝痛²。肌肉諸如股二頭肌和腓脛束僵緊都可引起前膝痛。

其他導致前膝痛的生物力學因素包括扁平足、高足弓、膝外翻等。^{2,3}

所有上述的因素都可以引起髌骨滑動的異常，增加膝關節的壓力，令軟骨磨蝕⁴，引起關節退化。

症狀

疼痛通常處於前膝，於上、落樓梯，斜路、下蹲或長時間坐低時加劇。在走路或屈膝時可聽到喀嚓聲。

治療

治療視乎前膝痛的成因和種類。治療通常包括：

- 避免膝關節負重的運動，諸如跑步，直至症狀減輕為止。
- 使用穩定膝蓋的護膝
- 鍛鍊股外展和外旋的肌肉
- 伸展肌二頭肌和腓脛束
- 處方矯形鞋墊 (如果腳有寬扁或高足弓)

對上了年紀的患者，治療包括：

- 以上所有的方法
- 營養補充劑諸如葡萄糖胺、硫酸軟骨素等

一項涉及三十個患有髌股綜合症病人的研究顯示鍛鍊股外展和外旋的肌肉和伸展下肢的肌肉對膝痛和膝功能有正面的影響⁷。



灣仔脊醫診所

(香港脊骨神經科醫學院基金有限公司營運)

Wanchai Chiropractic Clinic

(Operated by Hong Kong Chiropractic College Foundation Ltd)

地址：香港灣仔軒尼詩道8-12號中港大廈11樓

Address : 11/fl China Hong Kong Tower, 8-12 Hennessy Road,
Wanchai, Hong Kong

Tel: 3998 3208 Fax: 3998 3222

REFERENCE

1. Arroll B. et al. Patellofemoral pain syndrome. A critical review of the clinical trials on non-operative therapy. American Journal of Sports Medicine. 1997; 25: 207-212
2. Juhn MS. Patellofemoral Pain Syndrome: A Review and Guidelines for Treatment. Journal of American Academy of Family Physicians. 1999; 60(7):2012-2018
3. Hains G and Hains F. Patellofemoral pain syndrome managed by ischemic compression to the trigger points located in the peri-patellar and retro-patellar areas: A randomized clinical trial. Clinical Chiropractic. 2010; 13: 201-209
4. Robinson RL et al. Analysis of hip strength in females seeking physical therapy treatment for unilateral patellofemoral pain syndrome. Journal of Orthopaedic and Sports Physical Therapy. 2007;37(5): 232-238
5. Powers CM. The influence of abnormal hip mechanics on knee injury: a biomechanical perspective. Journal of Orthopaedic and Sports Physical Therapy. 2010; 40(2): 42-51
6. Boling MC et al. A prospective investigation of biomechanical risk factors for patellofemoral pain syndrome. The joint undertaking to monitor and prevent ACL injury cohort. American Journal of Sports Medicine. 2009; 37(11): 2108-2116
7. Avraham F et al. The efficacy of treatment of different intervention programs for patellofemoral pain syndrome-a single blinded randomized clinical trial. Pilot study. The Scientific World Journal. 2007; 7:1256-1262

HCC20121029-8C

When you are walking up and downstairs or getting up from a chair, do you notice any pain or 'cracking' sound around the front of the knee or patella? If you have these symptoms, you may probably have patellofemoral pain syndrome (PFPS). Researches stated that maltracking of the patellofemoral joint would possibly lead to knee degeneration in the future⁶. So it is important to receive proper treatment in the initial stage of the condition.



What is patellofemoral pain syndrome?

Patellofemoral pain syndrome is related to biomechanical abnormalities and mal-tracking of the patella, which is a common cause of anterior knee pain. In United States, It afflicts 22 persons out of 1000 each year. It commonly afflicts the younger physically-active population (13-15 year of age) undergoing strenuous physical activities¹, female in their 30-50 and older population(50-70 year of age) with osteoarthritis of the knee. There is usually no specific history of trauma.

What are the causes of patellofemoral pain syndrome?

Causes of patello femoral pain syndrome are multifactorial. Recent researches have shown that weakness of the hip external rotator would lead to knee (patellofemoral) pain. In human body, hip joint and its surrounding muscles play a crucial role in lower limbs kinematic, such as for running. Weakness of the hip external rotator would cause the leg to rotate internally. It would then affect the knee kinematic and strain its muscles⁵, increasing the pressure between patella and femur, leading to anterior knee pain². Muscular tightness such as hamstring and Iliotibial band would also cause anterior knee pain.

Besides, other biomechanical factors that would cause knee pain includes flat feet, high-arched foot, knock knee (↑ Q-angle of knee).^{2, 3}

All of the factors mentioned above would lead to abnormal patellar tracking and increase stress at knee joint. It may cause subsequent wear on the articular cartilage⁴ and knee joint degeneration in the future.

Symptoms

Pain is usually deep in the knee, usually around the knee cap. Pain is aggravated during activities that require knee flexion under loading such as climbing stairs, walking down slopes or stairs, squatting or prolonged sitting (movie sign). Clicking sounds (crepitus) around the patella may be present during walking or knee bending.

Treatment

Treatment plan depends on the causes, types of anterior knee pain. The treatment generally includes:

- Avoid activities involving weight-bearing of knee such as running until the symptoms subside
- Knee brace that stabilize the knee cap
- Strengthening exercises of abductors and external rotators of the hip
- Stretching of hamstring and Iliotibial band
- Foot orthoses if flat feet or high arch is diagnosed.

For the elderly patient, the treatment includes:

- All of the above,
- Nutritional supplement such as glucosamine sulphate, chondroitin sulphate

A study of 30 patients with patellofemoral pain syndrome, demonstrated that both strengthening of the hip external rotator and low limb muscle stretching have positive effect on the knee pain and function⁷.

