

血友病的關節問題

Hemophilic Arthropathy



香港血友病會
Hong Kong Haemophilia Society

骨科與物理治療講座

時間	主題	講者
14:45~15:00	接待	
15:00~16:00	血友病的關節問題	鍾廣賢醫生 威爾斯親王醫院矯形外科 及創傷科副顧問
16:00~16:30	小休	
16:30~17:30	物理治療 (講座及運動示範)	林漢威先生 註冊物理治療師

日期： 2017年1月8日(星期日)

名額：不限

地點： 亞皆老街147B號醫院管理局大樓

備註： 當天上午11時有血友病家屬朋友捐血活動
請致電陳太 9381 8962 查詢或報名

骨科與物理治療講座 報名表格

查詢/報名：郵寄下列表格至 九龍橫頭磡邨宏禮樓地下 香港血友病會收；
電郵名單至 office@haemophilia.org.hk；
即日起致電 3998 3624 -區焯堦 / 報名或查詢詳情；



鍾廣賢醫生
威爾斯親王醫院
矯形外科及創傷科

為什麼血友病患者會出現關節病變？

Pathogenesis

- 血友病
 - 遺傳性血液凝固異常的疾病
 - 容易出血
 - 難於止血

- 關節內出血，關節積血 repeated hemarthrosis
- 關節滑膜 synovium:
 - 關節滑膜增生 synovial hypertrophy
 - 含鐵血黃素沉積 hemosiderin deposit
 - 慢性滑膜炎 chronic synovitis
- 軟骨 cartilage:
 - 酶破壞軟骨 lysozomal enzyme from synoviocytes
 - 關節液異常 abnormal synovial fluid

- 由於減少使用 disuse:
 - 肌肉萎縮 muscle atrophy
 - 關節攣縮 joint contracture
 - 骨質疏鬆 osteopenia
- 血友病關節病 hemophilic arthropathy

病徵和症狀 signs & symptoms

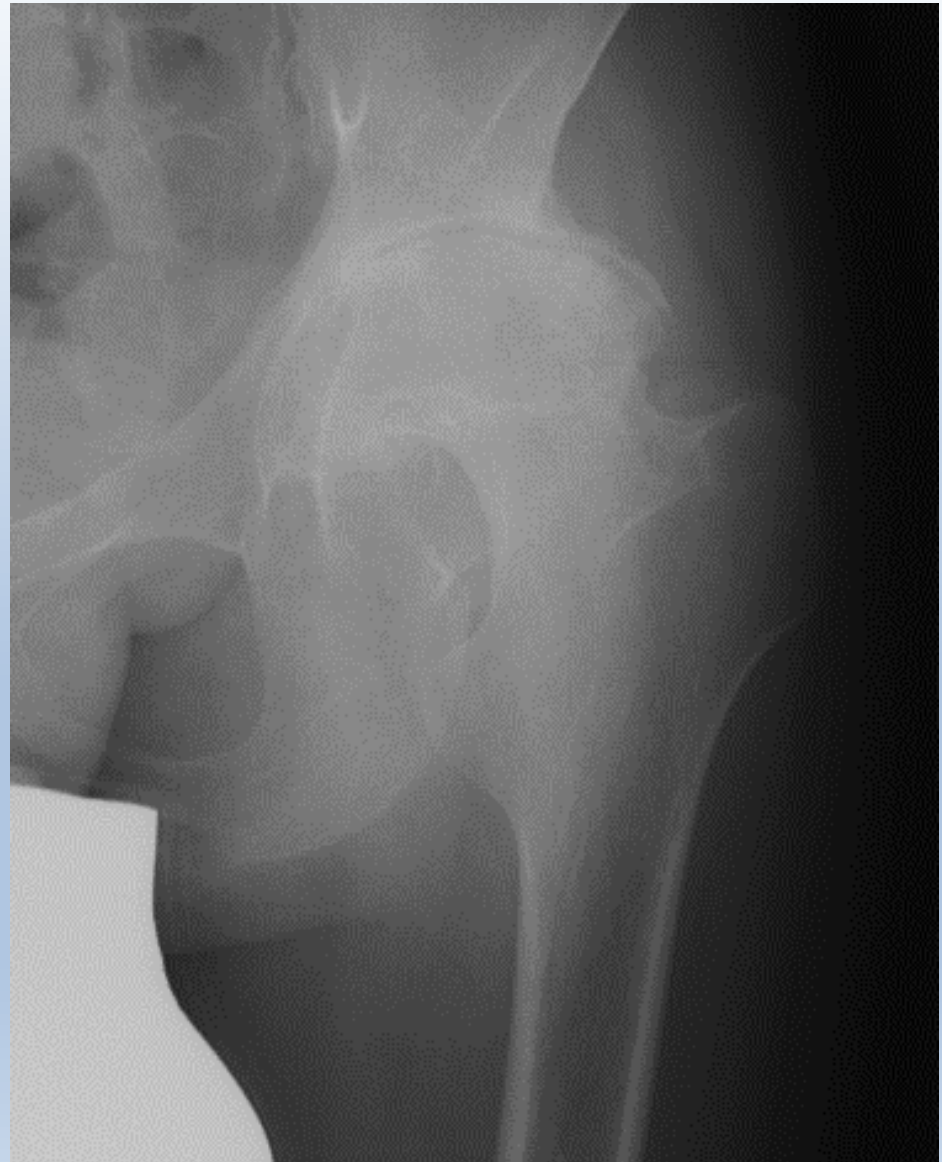
- 關節痛楚、疼痛
- 關節腫脹
- 關節僵硬、攣縮、不能完全伸直、活動範圍減少
- 關節變得不穩定
- 關節附近的肌肉變得軟弱乏力
- 活動時引起痛楚
- 關節不能負重
- 隨著時日，幾乎所有關節內的軟骨被破壞，關節更有時甚至不能活動

哪個關節最受影響？

膝關節 Knee Joint (44%)



髋關節 Hip Joint



踝關節 Ankle Joint (14.5%)



肘關節 Elbow Joint (25%)



肩關節 Shoulder Joint



預防勝於治療

Prevention is better than cure

- 預防性凝血因子注射
prophylactic factor replacement
- 減少流血及流血引起的疼痛
Decrease bleeding and bleeding
related pain

血友病關節病的治療目的

- 1) 緩解疼痛 Pain relief
- 2) 維持關節活動能力 Maintain joint mobility
- 3) 改善日常生活 Improved function

急性關節內出血

- 關節痛楚、疼痛 pain
- 關節腫脹 swelling
- 關節變暖 warmth
- 關節僵硬、活動範圍減少 decrease range of motion
- 先兆、預感 'aura' (unusual sensation in the joint)

急性關節內出血治療

- 按需要凝血因子注射 (在兩個小時之內)
on demand factor replacement
- 快速停止出血、緩解疼痛

急性關節內出血治療

- “R” rest 休息
- “I” ice 冷凍療法
- “C” compression 壓縮治療
- “E” elevation 提高患處

急性關節內出血治療

- 止痛劑 Analgesics
- 關節抽液 Joint aspiration
 - 嚴格的無菌抽液
 - +/- 類固醇注射

急性關節內出血治療

休息

減少負重

關節活動

物理治療及復健



血友病關節病長遠治療

- 凝血因子注射 factor replacement (prophylactic / on demand)
- 止痛劑 analgesics
- 關節注射 joint injection
- 物理治療 physiotherapy
 - 增加關節活動範圍、增強肌力
- 心理支援 psychological support

手術治療 Surgical management

- 關節滑膜切除 Synovectomy (open, arthroscopy, chemical, radioactive) -> treat chronic synovitis
- 截骨重組 Realignment osteotomy
- 關節置換 Joint replacement
- 關節融合 Arthrodesis

血友病關節病長遠治療

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撲熱息痛

paracetamol / acetaminophen

- 副作用較少
- 特別注意
 - 肝臟功能不健全
 - 丙型肝炎病毒帶菌者

非類固醇類消炎藥

Non-steroidal Anti-Inflammatory Drug (NSAID)

- 主要減輕炎症的疼痛症狀
- 可以引致嚴重的副作用
 - 消化不良、消化系統潰瘍、消化道出血
 - 腎衰竭
 - 心臟病、心血管副作用
 - 凝血/血小板功能障礙

環氧化酶-2 抑制劑

Cyclo-oxygenase-II Selective Inhibitor (COX-II inhibitor)

- 痛博士 Celecoxib (Celebrex)
- 安痛易 Etoricoxib (Arcoxia)
- 減少消化系統副作用
- 心血管副作用的考慮
 - 由於Rofecoxib (Vioxx)增加心臟病發作和中風的風險，此藥於從市場收回

鴉片類止痛劑 Opioid

- Codeine
- Meperidine
- Tramadol
- Morphine
- Fentanyl

鴉片類止痛劑 Opioid

- 止痛功效強
- 副作用：
 - 便秘
 - 噁心嘔吐
 - 嗜睡
 - 抑制呼吸
 - 藥物耐藥性、藥物成癮 drug tolerance and addiction

關節注射 - 類固醇

Intra-articular steroid injection

- 消炎作用
- 短暫、局部效用
- 退化性關節炎
- 類風濕關節炎
- ? 血友病關節病

Intraarticular Dexamethasone in Advanced Chronic Synovitis in Hemophilia

Federico Fernández-Palazzi, MD;* *Horacio A. Caviglia, MD**;*
José R. Salazar, MD;* *Justo López, MD*;* and *Rodolfo Aoun, MD**

- 34 patients
- 35 joints
- (31 knees)

**TABLE 1. Subjective Results
According to Synovitis Degree**

Synovitis Degree	Good	Fair	Poor
Grade III	17	8	1
Grade IV	2	4	3
Total	19	12	4
Percentage	56	35	12

**TABLE 3. Objective Results
According to Synovitis Degree**

Synovitis Degree	Good	Fair	Poor
Grade III	17	7	2
Grade IV	5	2	2
Total	22	9	4
Percentage	65	26	12



ORIGINAL ARTICLE

Efficacy and safety of point-of-care ultrasound-guided intra-articular corticosteroid joint injections in patients with haemophilic arthropathy

E. J. MARTIN,* E. J. COOKE,*† A. CEPONIS,‡ R. F. W. BARNES,* C. M. MORAN,* S. HOLLE,* T. H. HUGHES,§ R. E. MOORE¶ and A. VON DRYGALSKI*†

*Division of Hematology/Oncology, Department of Medicine, University of California, San Diego, San Diego, CA;

†Department of Molecular and Experimental Medicine, The Scripps Research Institute; ‡Division of Rheumatology, Allergy and Immunology, Department of Medicine, University of California, San Diego, La Jolla, CA; §Department of Radiology, University of California, San Diego, San Diego, CA; and ¶General Musculoskeletal Imaging Inc, Cincinnati, OH, USA

Table 2. Characteristics of injected joints.

Number of joints injected	45
Type of joint	
Ankle*	14 (31%)
Knee	18 (40%)
Elbow	13 (29%)

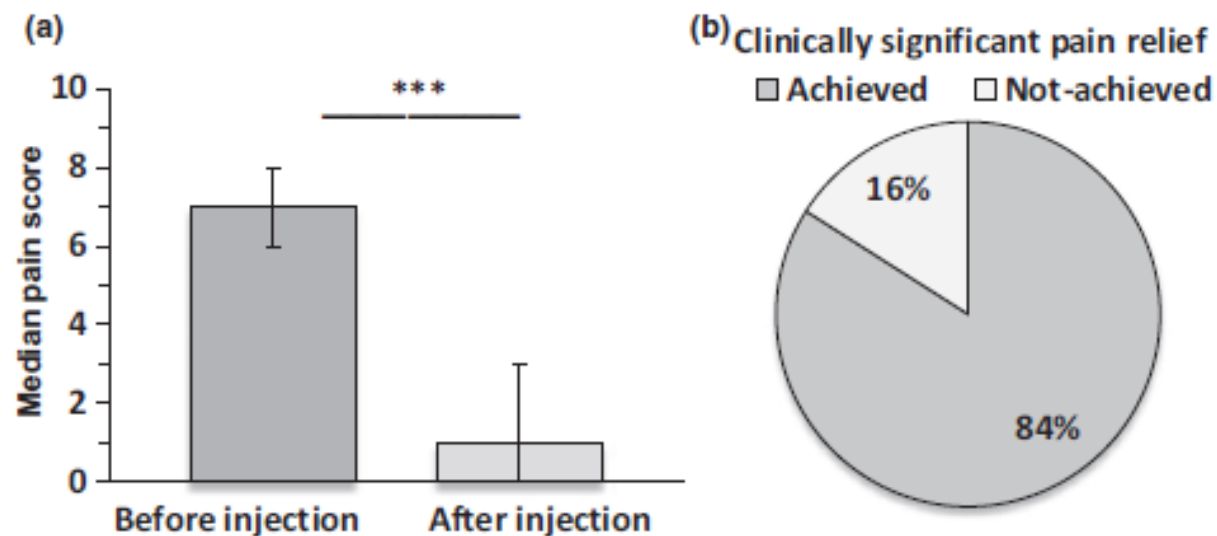


Fig. 1. Efficacy of pain relief with intra-articular corticosteroid injection. (a) Decrease in patient-reported joint pain (Visual Analogue Scale 0–10) following corticosteroid injection ($n = 45$) expressed as reduction in median pain score. Statistical significance was determined by matched-pairs signed-rank test. Error bars represent interquartile ranges. (b) Percent of corticosteroid injections associated with clinically significant pain relief ($n = 45$). Clinically significant pain was defined as reduction in pain of 30% or greater. Error bars represent interquartile range and ***denotes statistical significance at $P \leq 0.001$.

關節注射 - 透明質酸

Intra-articular viscosupplement injection

- 潤滑關節 lubrication



TREATMENT OF OSTEOARTHRITIS OF THE KNEE

EVIDENCE-BASED GUIDELINE 2ND EDITION

Adopted by the American Academy of Orthopaedic Surgeons
Board of Directors
May 18, 2013

RECOMMENDATION 9

We cannot recommend using hyaluronic acid for patients with symptomatic osteoarthritis of the knee.

Strength of Recommendation: Strong

Description: A **strong** recommendation means that the quality of the supporting evidence is high. A harms analysis on this recommendation was not performed.

Implications: Practitioners should follow a **Strong** recommendation unless a clear and compelling rationale for an alternative approach is present.

Osteoarthritis

Care and management in adults

Issued: February 2014

NICE clinical guideline 177
guidance.nice.org.uk/cg177

Intra-articular injections

1.5.12 Intra-articular corticosteroid injections should be considered as an adjunct to core treatments for the relief of moderate to severe pain in people with osteoarthritis. **[2008]**

1.5.13 Do not offer intra-articular hyaluronan injections for the management of osteoarthritis. **[2014]**

Intra-articular injections of hyaluronic acid (viscosupplementation) in the haemophilic knee

E. Carlos Rodriguez-Merchan^{a,b}

Blood Coagulation and Fibrinolysis 2012, 23:580–583

postinjection period). There are only five reports in the literature on the efficacy of knee viscosupplementation in haemophilia, all of them with a low level of evidence. The five studies dealing with viscosupplementation in haemophilia recommend it for haemophilic arthropathy of the knee as a way of delaying the need of operative treatment when noninvasive medical therapy (relative rest, oral anti-inflammatory drugs, oral analgesics and physical therapy) has failed. The short-lived improvement afforded

by viscosupplementation does not, however, seem to warrant its use in haemophilic patients given the risks and the cost involved. Further trials are required to ascertain whether viscosupplementation should be indicated in painful radiological haemophilic arthropathy of the knee.



Contents lists available at [SciVerse ScienceDirect](#)

The Knee



Intra-articular injections of hyaluronic acid induce positive clinical effects in knees of patients affected by haemophilic arthropathy

Christian Carulli ^{a,*}, Fabrizio Matassi ^a, Roberto Civinini ^a, Massimo Morfini ^b,
Massimiliano Tani ^a, Massimo Innocenti ^a

^a First Orthopaedic Clinic, University of Florence, Florence, Italy

^b Agency for Haemophilia and Inherited Blood Disorders, AOU Careggi, Florence, Italy

Conclusions: Viscosupplementation is a safe and effective therapeutic strategy in knee haemophilic arthropathy, with no complications, persisting good clinical results, and determining in most cases a delay of surgery.

- 如果以上方法未能有效舒緩痛楚，維持日常生活質素，可以慎重考慮手術治療



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教育資訊

以下為本會各講座的投影片講議：

教育講座 -- 第九週年會員大會 @ 2015-04-12

醫生，我係咪要換髖喇？(血友病患者的關節置換)

鍾廣賢醫生 <威爾斯親王醫院矯形外科及創傷科顧問>