

# Arthropathy in Mild and Moderate Hemophilia

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# Arthropathy Prior to Factor Availability

- \* “one-third” of patients with moderate hemophilia A and very few with mild hemophilia have ankle arthropathy

Ahlberg A. Haemophilia in Sweden. VII. Incidence, treatment and prophylaxis of arthropathy and other musculo-skeletal manifestations of haemophilia A and B. Acta Orthop Scand 1965; Suppl 77: 3–132.

# Pain in Mild and Moderate Hemophilia

- \* 43% of 100 adult patients with mild/moderate hemophilia A have chronic musculoskeletal pain

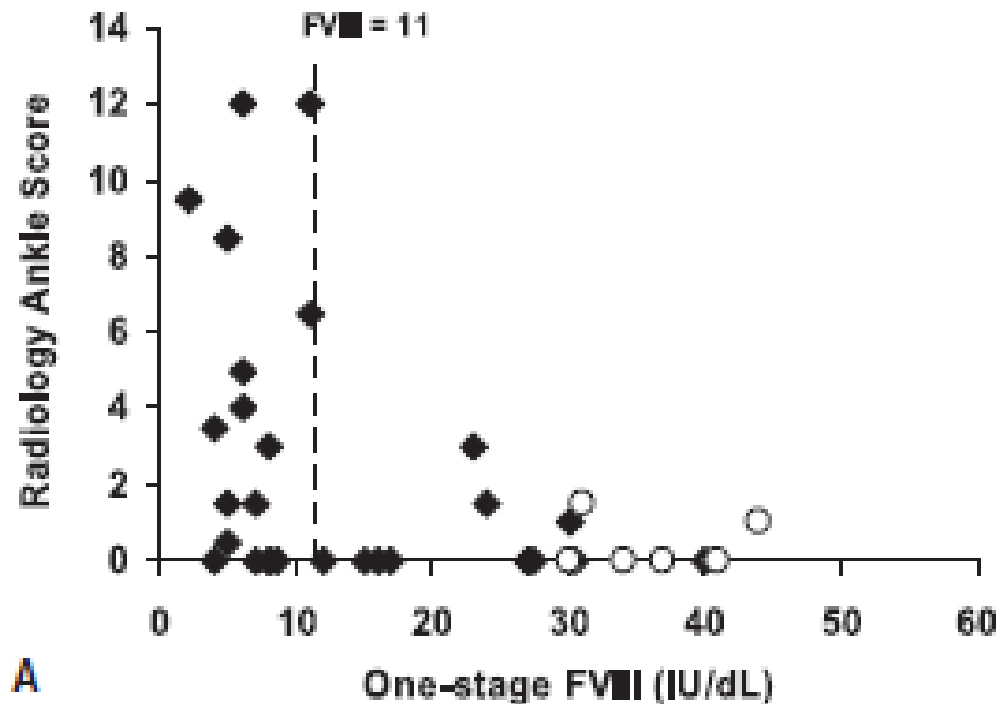
Miners AH, Sabin CA, Tolley KH, et al. Assessing health-related quality-of-life in individuals with haemophilia. *Haemophilia* 1999; 5: 378–385.

# Radiologic Results in Moderate Hemophilia

- \* 51% of 35 adult patients with moderate hemophilia A have a positive Pettersson score in the combined radiological evaluation of three joints (ankle, knee and elbow), despite a third of them having received prophylaxis

Fischer K, van der Bom JG, Mauser-Bunschoten EP, et al. Endogenous clotting factor activity and long-term outcome in patients with moderate haemophilia. *Thromb Haemost* 2000; 84: 977–980.

# Factor Levels and Ankle Arthropathy



A

Ling M<sup>1</sup>, Heysen JP, Duncan EM, Rodgers SE, Lloyd JV.  
High incidence of ankle arthropathy in mild and moderate  
haemophilia A. *Thromb Haemost.* 2011 Feb;105(2):261-8.

Little is known about the incidence of arthropathy in children with mild/moderate hemophilia.

# Hypotheses

- \* Ankle arthropathy is present in pediatric patients with mild and moderate hemophilia A and B
- \* Factor level is correlated with presence of ankle arthropathy
- \* Factor usage history is correlated with presence of ankle arthropathy
- \* Phenotypic severity is correlated with presence of ankle arthropathy
- \* Patients with mild and moderate hemophilia with ankle arthropathy experience pain

# Methods/Outcomes

- \* Patients
  - \* pediatric patients with factor VIII or IX levels of 2-40%
- \* Evaluation
  - \* Radiographs of both ankles-Pettersson score
  - \* MRI both ankles-IPSG MRI score
  - \* Pain survey-what to use
  - \* HSS score?
    - \* Gilbert or INPH score if not using HSS
    - \* Factor usage history
    - \* Bleeding history



# Statistical Analysis

- \* REDCap database
- \* Need power calculation/sample size/statistician

Feedback and Collaboration  
Welcomed !!