

Spectrum of involvement and quantitative limitations in the four commonly affected joints in 478 haemophilia patients in Northern India

Naresh Gupta*, Monika Sharma#

*Director-Professor, Maulana Azad Medical College and Head, Haemophilia Centre, Lok Nayak Hospital, New Delhi, India

Email: doctornaresh@gmail.com

Physiotherapist, Haemophilia Centre, Lok Nayak Hospital, New Delhi, India

OBJECTIVES

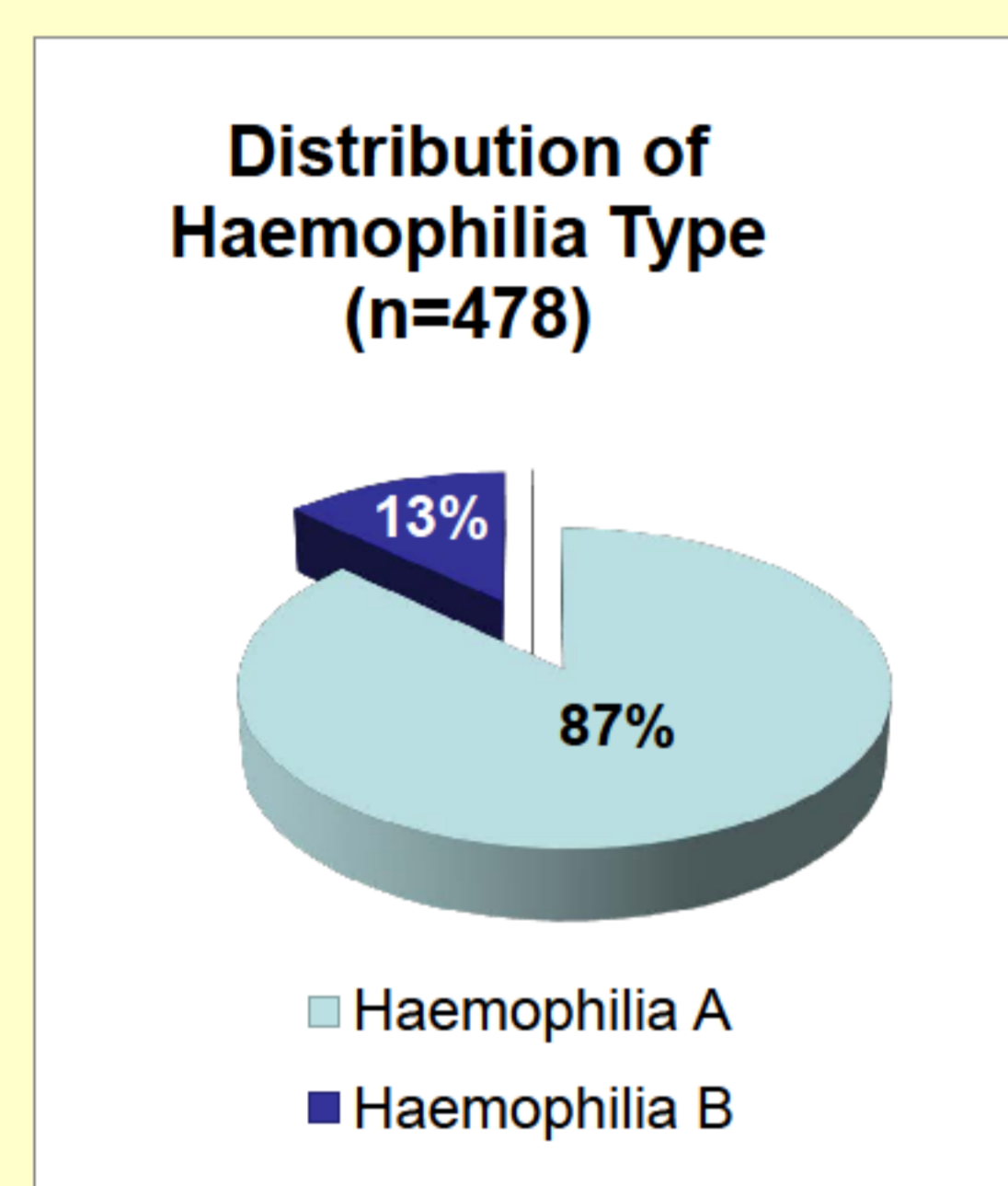
Musculoskeletal morbidities in haemophilia are common in developing countries from inadequate management. This paper presents spectrum of joint involvement and active ROM (range of motion) in knee, elbow, ankle and hip joints in patients at baseline.

METHODS

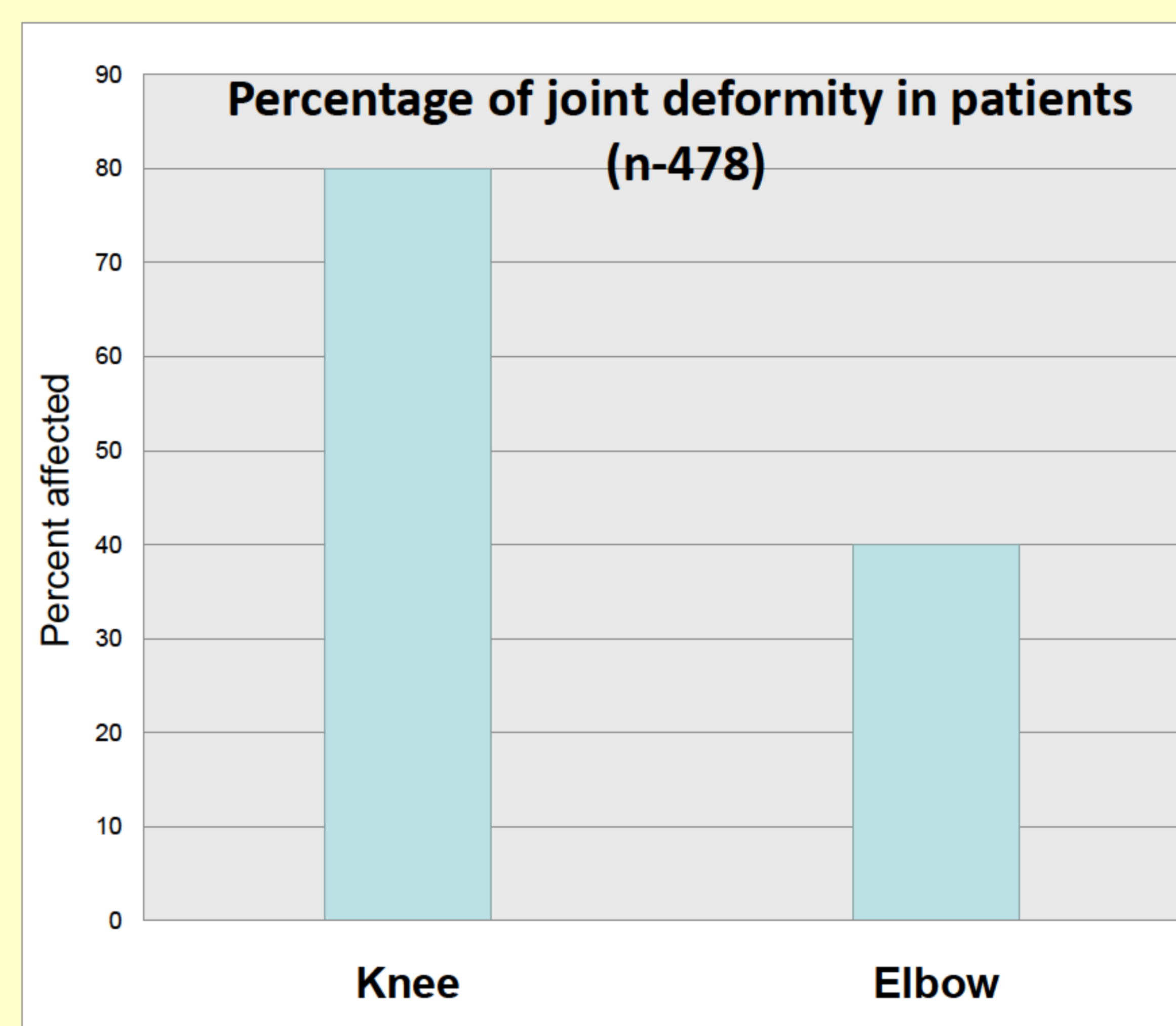
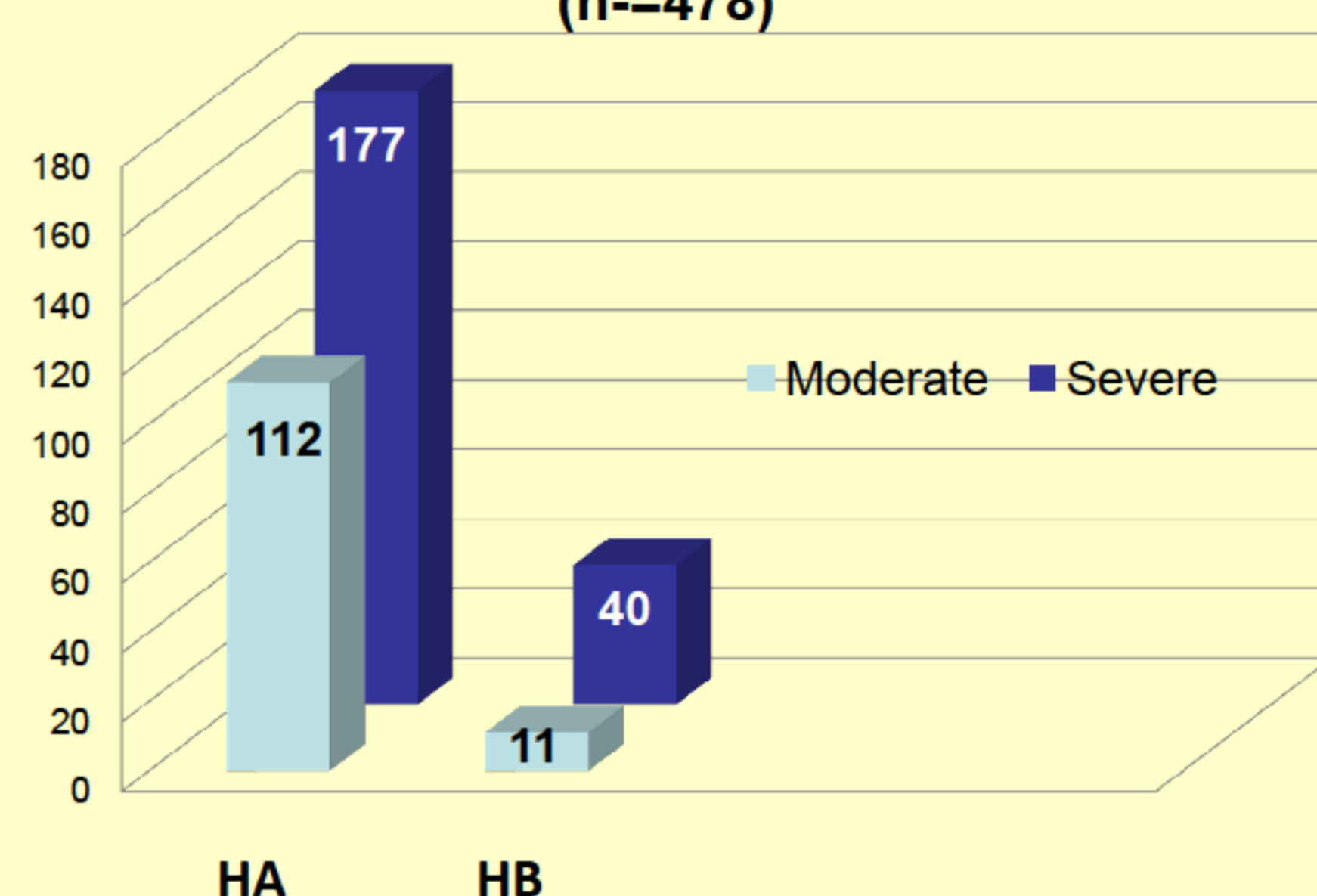
Our Haemophilia Centre in New Delhi, India has 1,620 patients who also undergo subjective and objective assessment for musculoskeletal disabilities. Data from initial 478 consecutive haemophilia patients assessed during 2009 to 2013 for active ROM in four major joints i.e. hip, knee, ankle and elbow prior to our interventions are presented. Movements tested included flexion, extension, abduction and adduction and were measured in degrees using standard goniometer by a single observer. Patient with active bleed were excluded.

OBSERVATION AND RESULTS

Mean age was 19.30 ± 10.37 years, range 1-63, in the study group of 478 haemophilia patients comprising of 416 (87%) haemophilia A and 62 (13%) haemophilia B. Haemophilia A was severe in 177 (42.54%) and moderate in 112 (26.92%), whereas for haemophilia B it was 40 (64.51%) and 11 (17.74%) respectively. Factor levels were missing in 115.



Distribution of Haemophilia Severity (n=478)



Total numbers of joints affected in these 478 patients were 747 i.e. on an average 1.6 joint per haemophilic patient. Knee was the most commonly affected (over 80%) joint, followed by elbow (around 40%). Hip joint was more frequently affected than ankle in our study, which was unusual.

Quantitative limitation in active ROM was maximal (40-45%) in the ankle flexion, hip flexion and abduction whereas disabilities in knees and elbows were limited by around 10-15%.

No difference was observed between the sides of joint involved.

CONCLUSIONS

1. Spectrum and extent of joint damage can be very vast with grave limitations in active ROM when the treatment facilities are inadequate.
2. Knees are the most frequently affected joints, accounting for over 80% of arthropathies.
3. Hip is affected more frequently than ankle in our subjects.
4. The less commonly affected ankle joint has the largest limitation in active ROM.
5. Such frequent and large involvements have adverse effect on physical activity and QoL and highlights the importance of physiotherapy as part of treatment in haemophilia

REFERENCES:

1. World Federation of Haemophilia. Global report 2012. <http://www.wfh.org>
2. Physiotherapy management of haemophilia. Editors-Brenda Buzzard, Karen Beeton, 2008
3. Soucie JM, Wang C, Forsyth A et al. Range of motion measurements: reference values and a database for comparison studies. Haemophilia 2011 May;17(3):500-7. doi: 10.1111/j.1365-2516.2010.02399.x.
4. Hoffman R, Benz EJ, Shattil SJ et al. Hematology. Basic principles and practice, 3rd edn. Churchill Livingstone, 1999
5. Aznar JA, Magallon M, Querol F, Gorina E, Tusell JM. The orthopedic status of severe hemophiliacs in Spain. Haemophilia 2000; 6: 170-6
6. Mulder K, Llinas A. The target joint. Haemophilia 2004; 10: 152-6

