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**Introduction:** Hemophilia is a congenital disease characterized by deficiency of factor coagulation VIII or IX. 85% of the bleeding in severe hemophilia occurs in the joints being the final stadium arthropathy. This pathology reduce articular movement, produce chronic pain, restricts daily activity, cause depression and most important is that patients lose quality of life.

**Aim:** Evaluate experimentally the development of hematic synovitis by nuclear magnetic resonance (NMR) in rabbits, to show the dynamic articular damage.

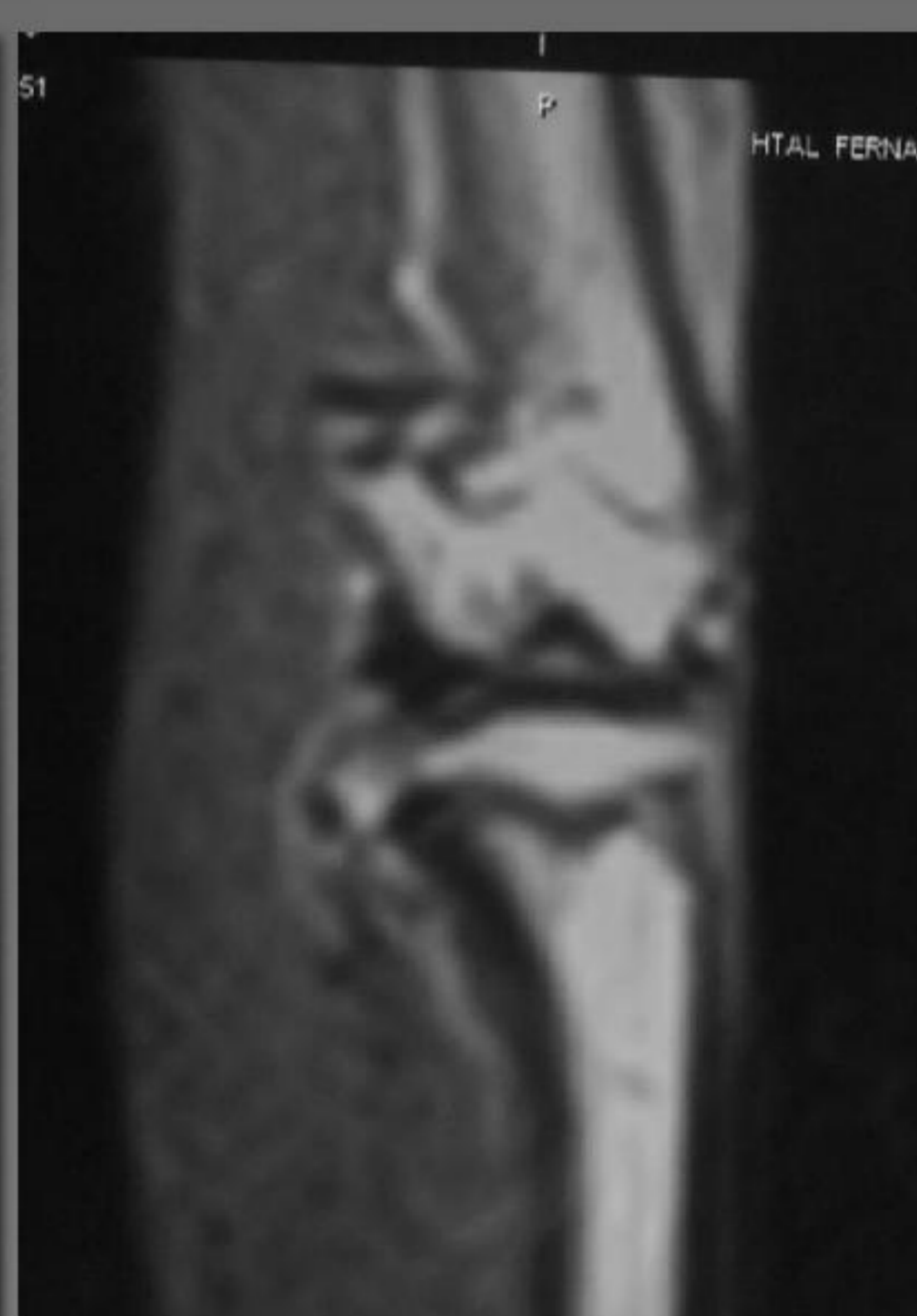


**Material and Method:** Articular cartilage damage was performed in white New Zealand male rabbits of 2 month of age; they were exposed to autologous blood in the right knee and saline solution in the left knee (control), with posterior NMR evaluation, X-rays and anatomopathological study.

The rabbits were divided in 3 groups of study (3 times a week joint injection). Group 1: 2 weeks; Group 2: 5 weeks and Group 3: 11 weeks of exposition in each one. One week after the last injection NMR was made.

The euthanasia was performed and the samples send to pathological anatomy. Normal images were obtained before the study began.

**Results:** The rabbits with less exposition to joint bleeding shows less cartilage damage synovitis, lameness, and joint iron deposit. Instead those rabbits with more exposition show large joint damage.



Group 1

Group 2

Group 3

**Conclusion:** This work reproduce the hemophilic arthropathy in an animal model. It shows cartilage damage produce by intrarticular blood, how it evidence the RX and NMR images.

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