

Morpho-functional
approach of shoulder and
elbow ultrasound in 12
scan planes

PART 1
Elbow



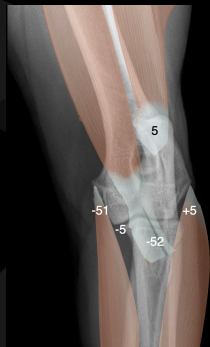
Thank to www.lobos.com



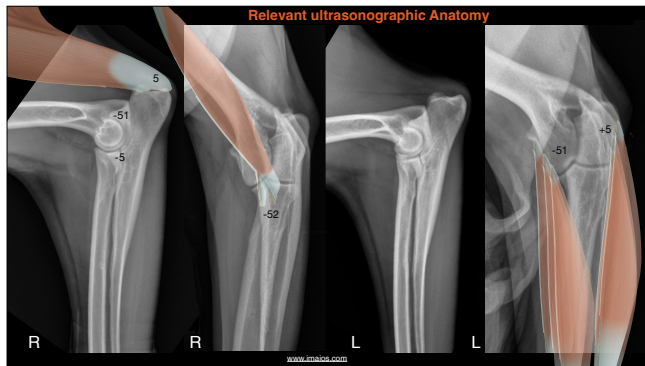
Giliola Spattini
DVM, PhD, DECVI

The shoulder ultrasound: elbow steps

1. 5 Triceps tendon insertion
2. -5 Cranial margin MCP
3. -51 Flexor tendons origin medial epicondyle
4. -52 Biceps tendon insertion
5. +5 Extensor tendons origin

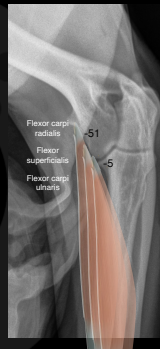


Relevant ultrasonographic Anatomy



The medial surface of the elbow

- The attachment of the flexor's tendon of the carpus
- Cranial surface of the ulnar's medial coronoid process

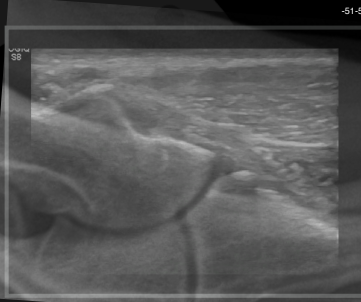


www.imaicos.com

Normal anatomy of the medial surface of the elbow



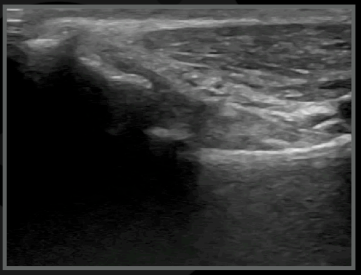
www.imaicos.com

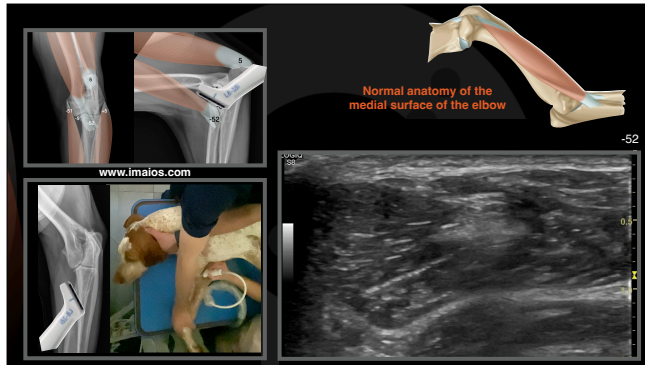


Normal anatomy of the medial surface of the elbow



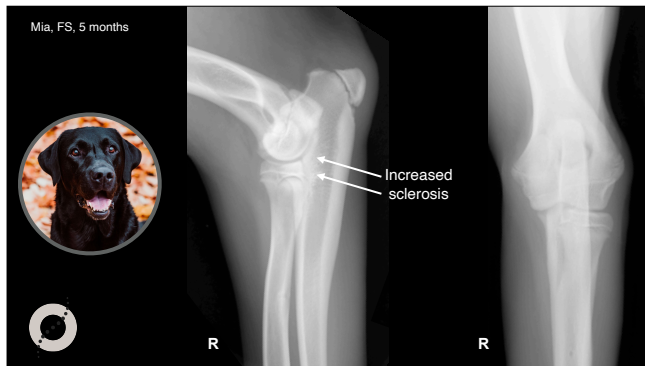
www.imaicos.com

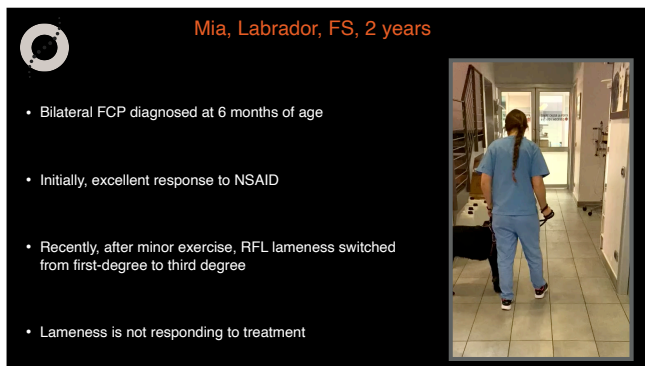
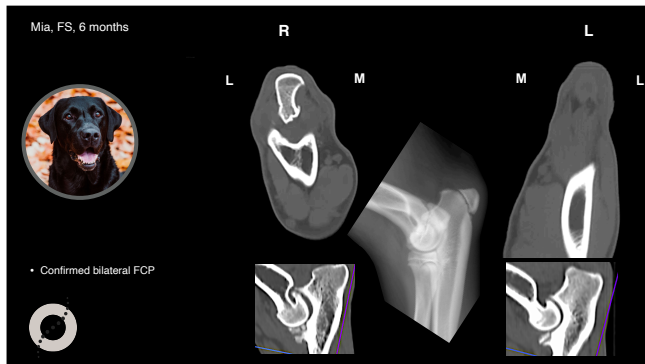


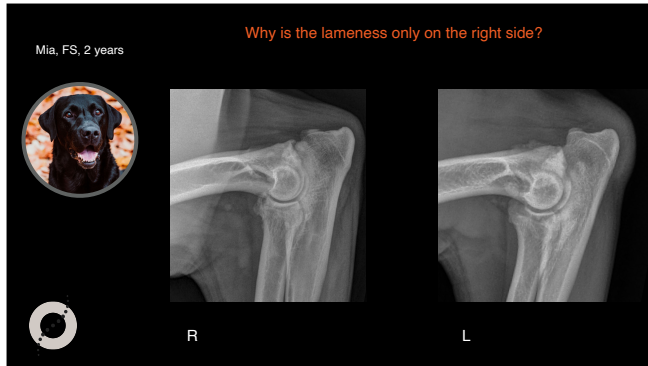


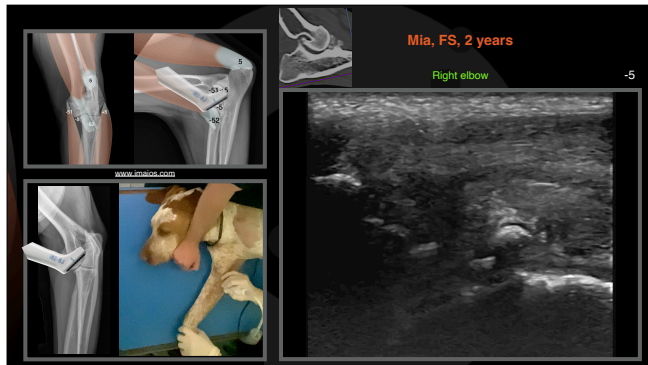
Mia, Labrador, FS, 2 years

- Lame right front limb at five months of age
- Orthopaedic examination positive for right elbow pain
- Radiographic examination performed at the time

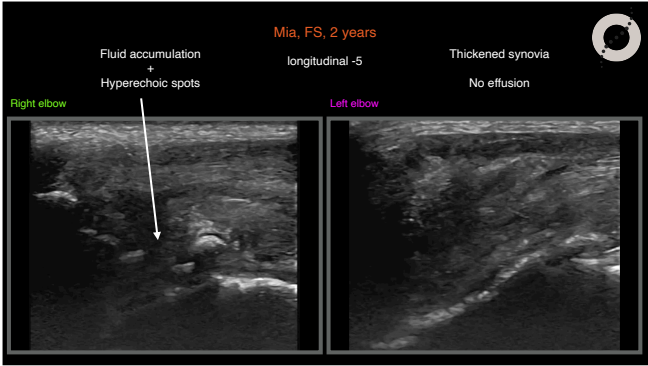


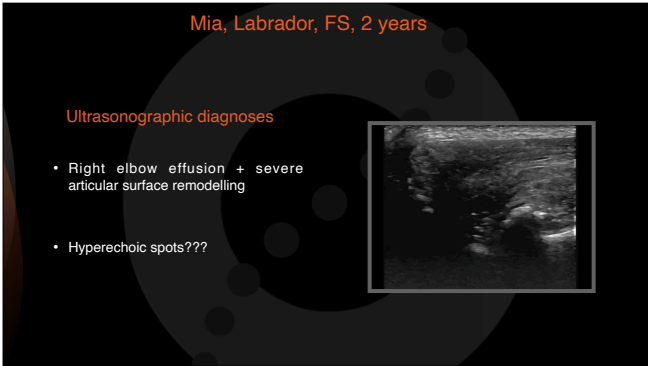


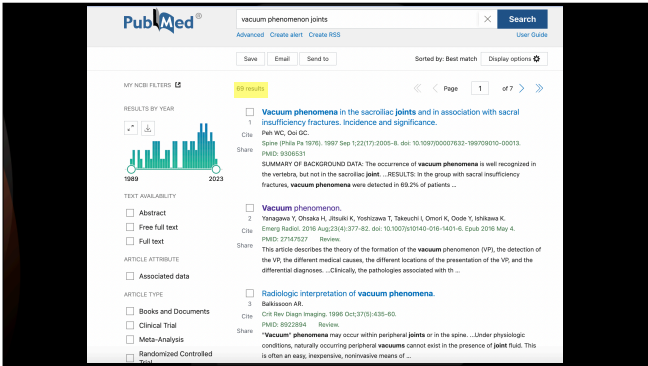












Emerg Radiol
DOI 10.1007/s10140-016-1401-6

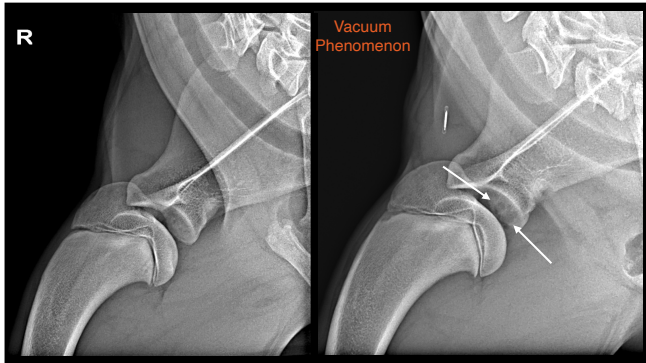
REVIEW ARTICLE

Vacuum phenomenon

Received: 17 March 2016 / Accepted: 26 April 2016
© American Society of Emergency Radiology 2016

Yoshiaki Yanagawa¹ · Hiromichi Ohsaka¹ · Kei Jitsui¹ · Toshitaka Yoshizawa¹ · Ikuto Takeuchi¹ · Kazuhiko Omori¹ · Yasumasa Odo¹ · Kouhei Ishikawa¹

the mechanism responsible for the formation of the VP [1]. If an enclosed tissue space is allowed to expand as a rebound phenomenon after an external impact, the volume within the enclosed space will increase. In the setting of expanding volume, the pressure within the space will decrease. The solubility of the gas in the enclosed space will decrease as the pressure of the space decreases. Decreased solubility allows a gas to leave a solution. The combination of lower nitrogen solubility and the minimal metabolism of nitrogen by the body mainly accounts for the formation of the VP. Basically, the mechanism underlying the formation of the VP is the same as cavitation induced by rotation of a ship's propeller in water, which depends on two laws of physics: Henry's Law and Boyle's Law.

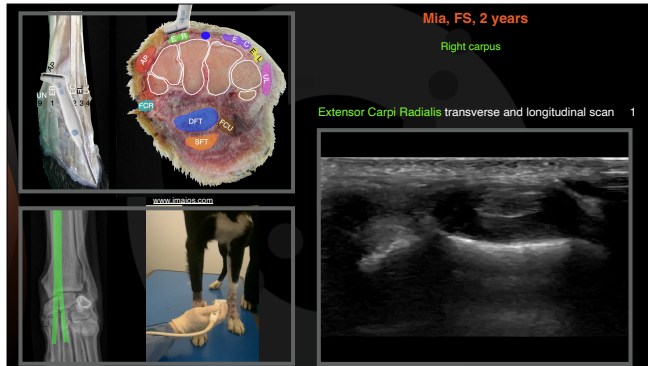


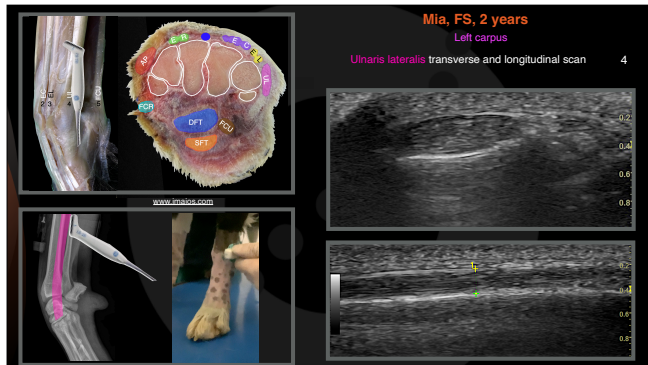
Mia, FS, 2 years

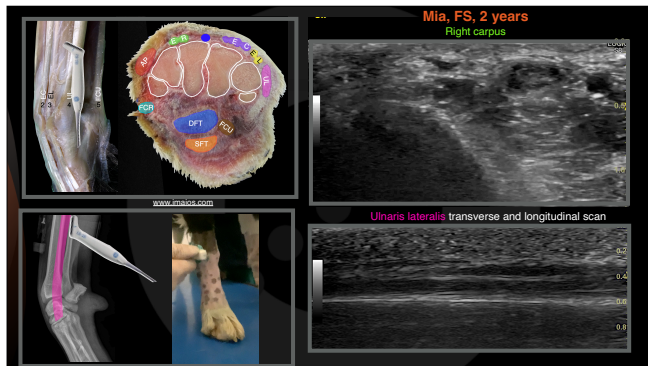
Left carpus

Extensor Carpi Radialis transverse scan

1









Mia, Labrador, FS, 2 years

Two months follow-up

- She is doing very well
- Physiotherapy once a week and then every two weeks
- No need for NSAID at the moment
- She increased her daily exercises



Thank you



Diagnostic Mindset

www.diagnosticmindset.com