

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

PART 1 Elbow



Thank to www.imaios.com

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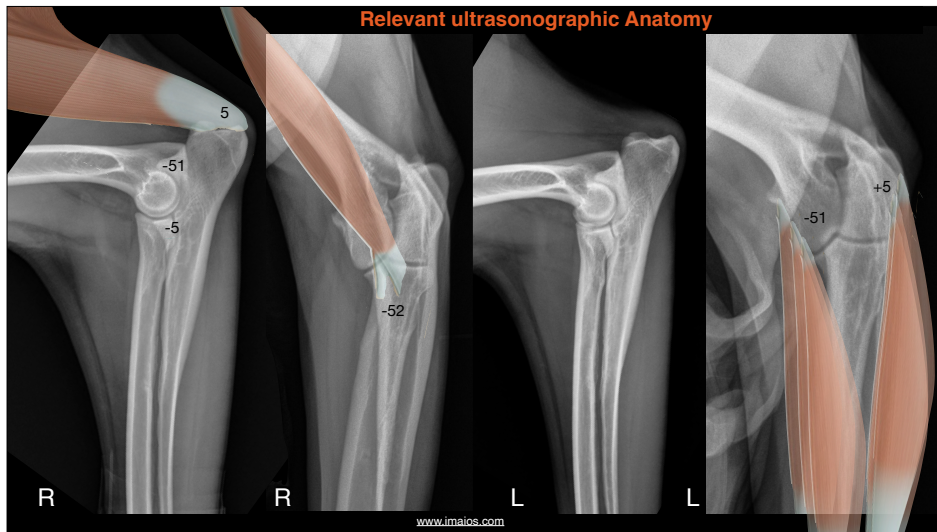


The shoulder ultrasound: elbow steps

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

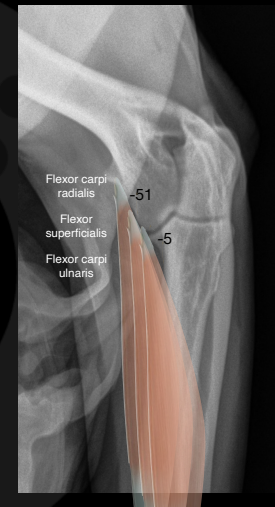


Relevant ultrasonographic Anatomy

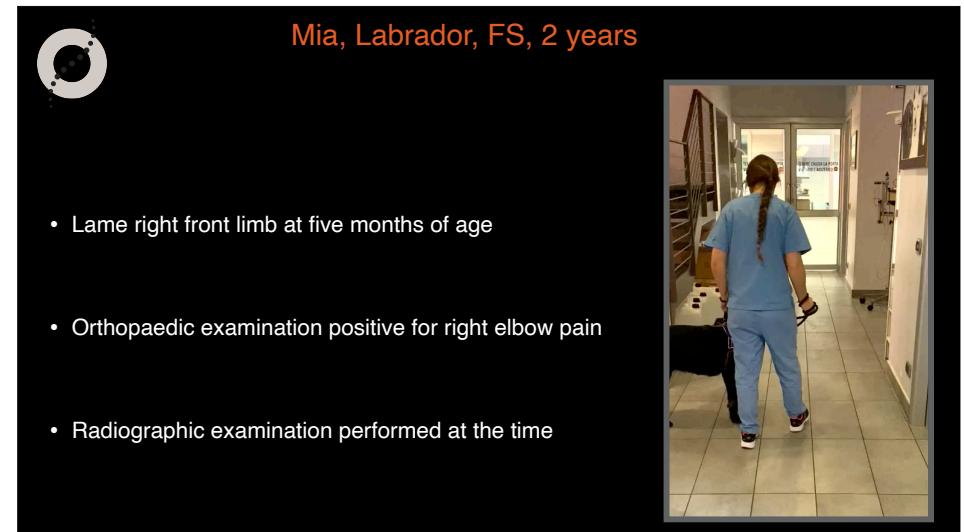
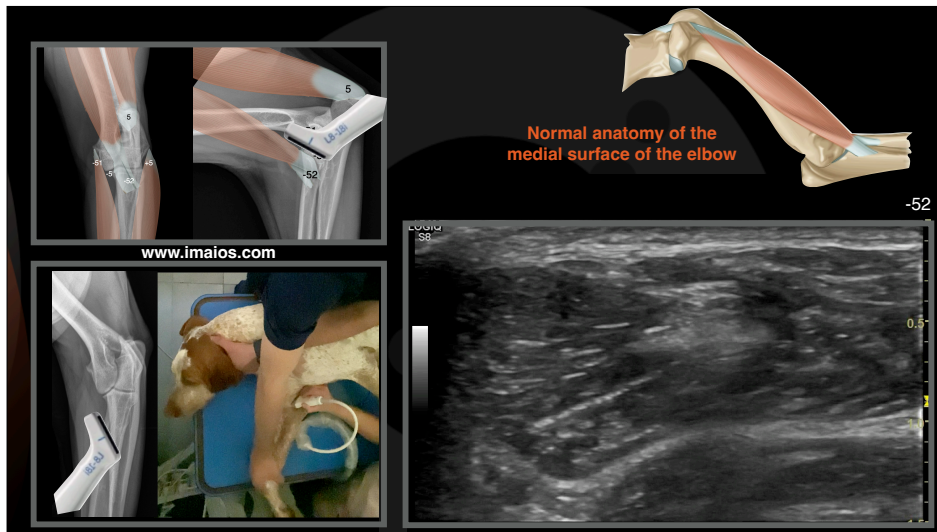
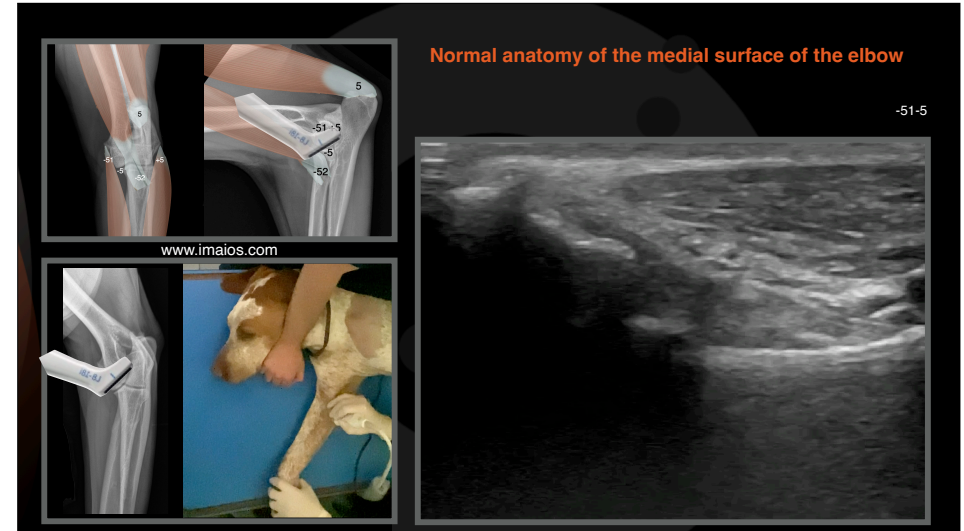
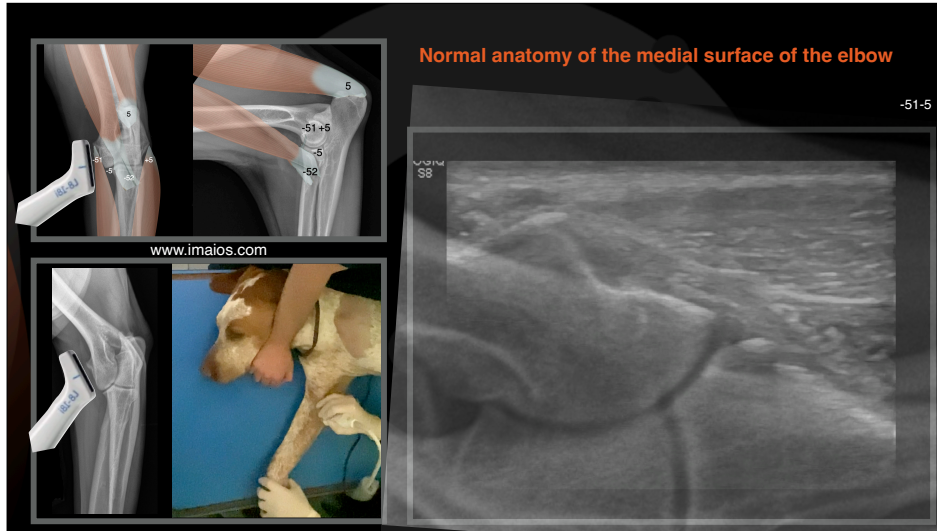


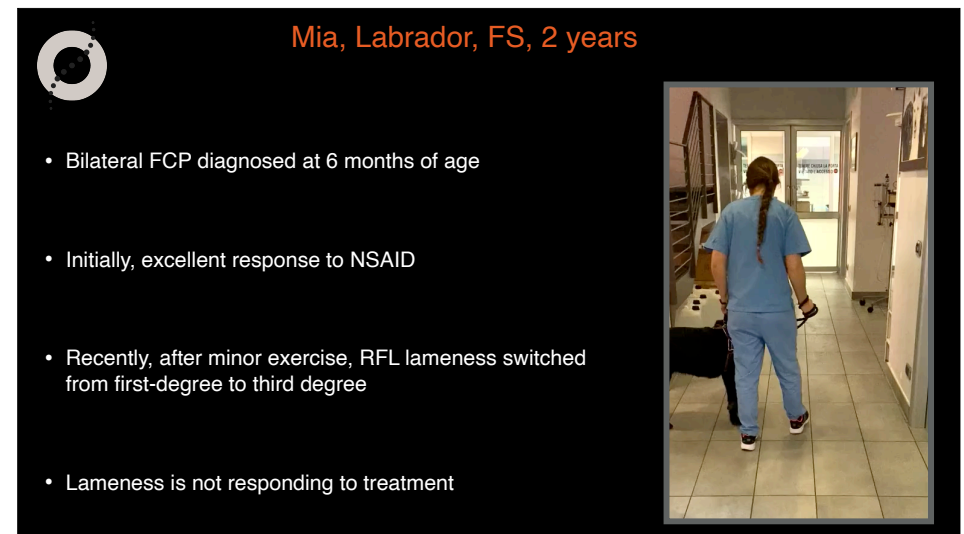
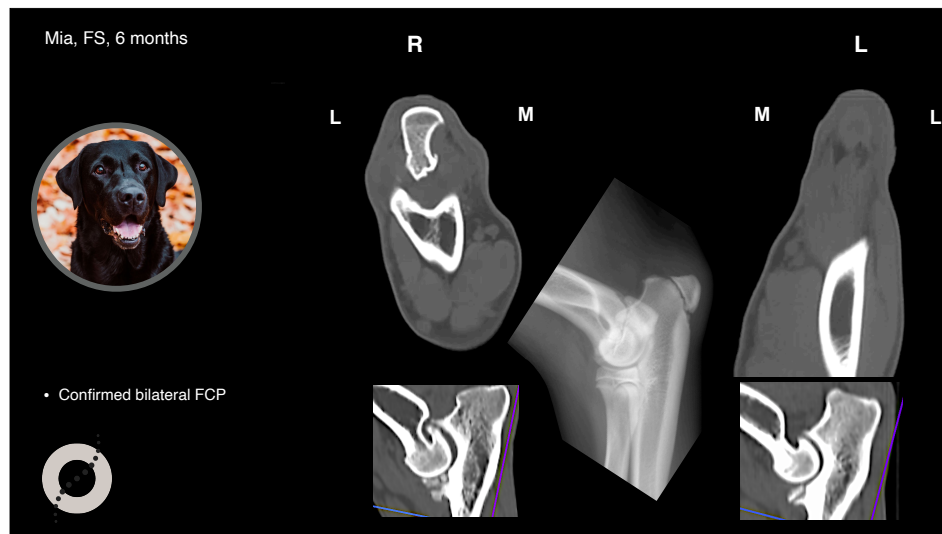
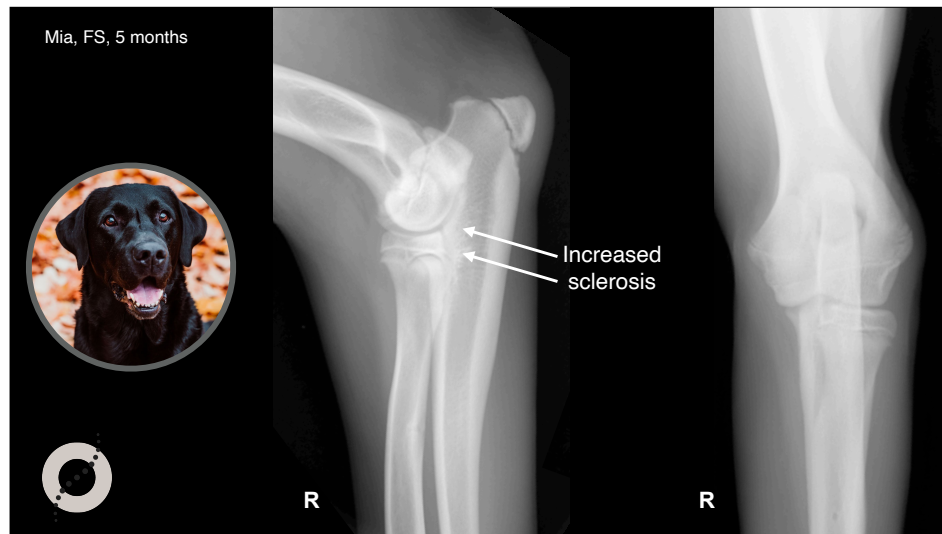
The medial surface of the elbow

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






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Mia, FS, 2 years

Why is the lameness only on the right side?

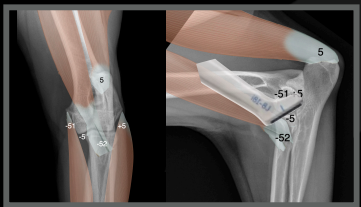
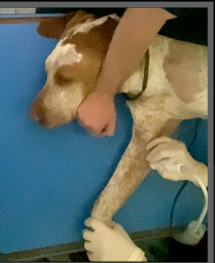
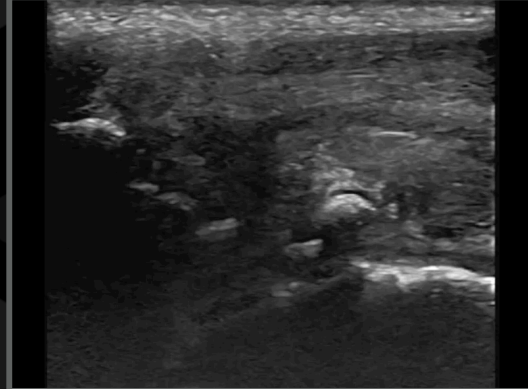
R L



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Right elbow

-5

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Left elbow

-5





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Right elbow

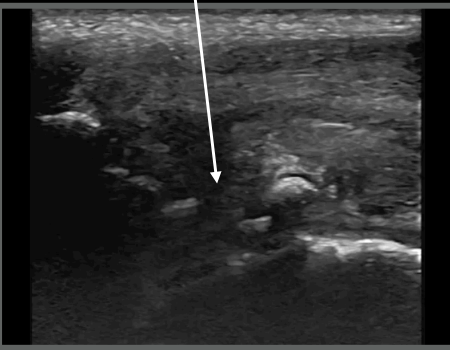
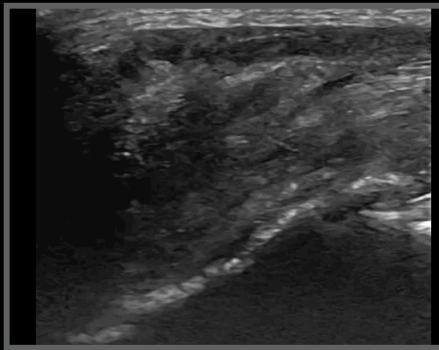

Left elbow

Fluid accumulation + Hyperechoic spots

longitudinal -5

Thickened synovia

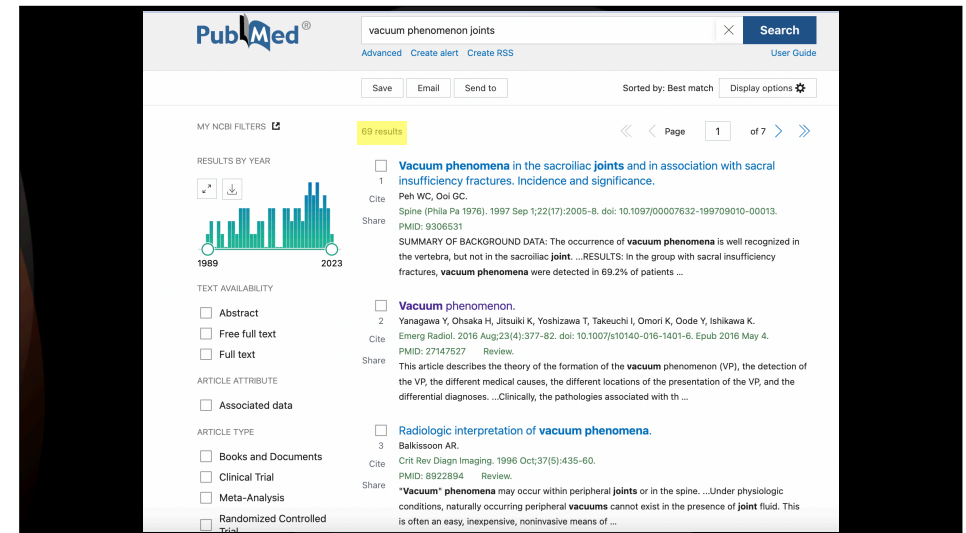
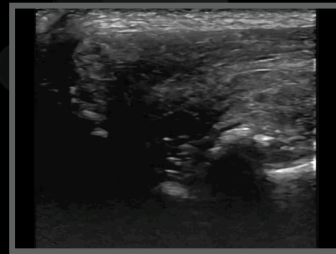
No effusion

Mia, Labrador, FS, 2 years

Ultrasonographic diagnoses

- Right elbow effusion + severe articular surface remodelling
- Hyperechoic spots???



Emerg Radiol
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REVIEW ARTICLE

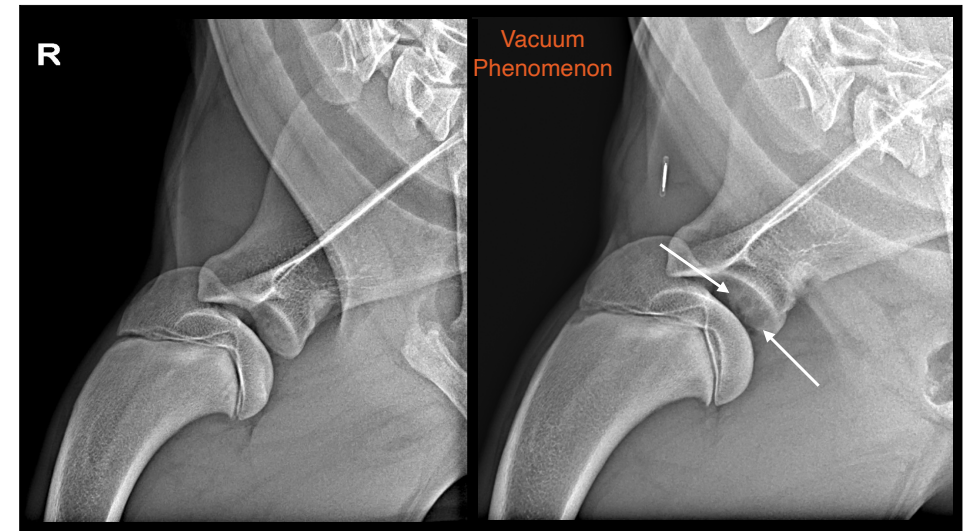
Vacuum phenomenon

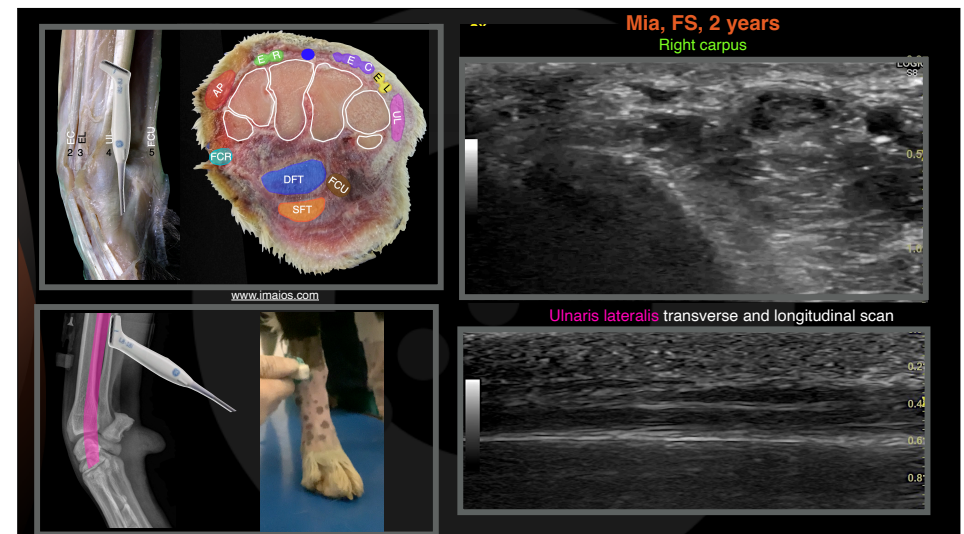
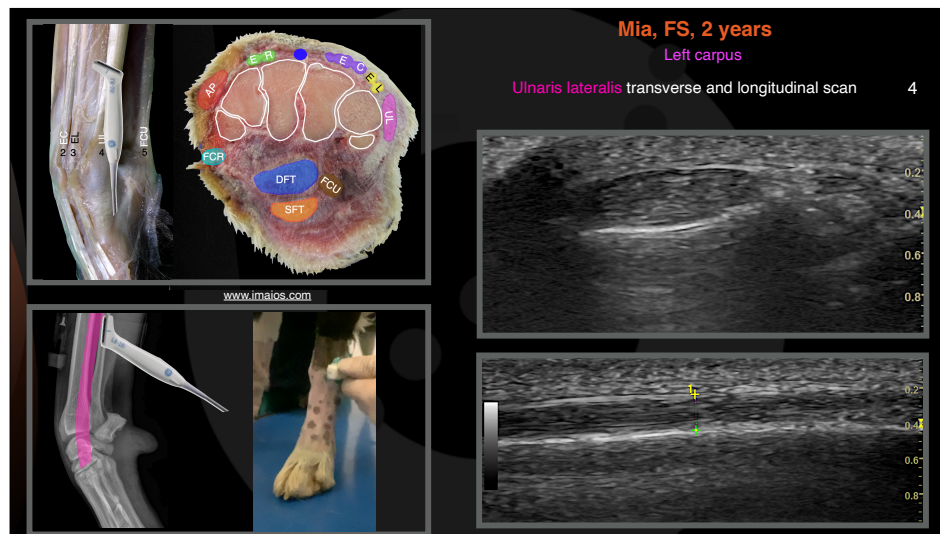
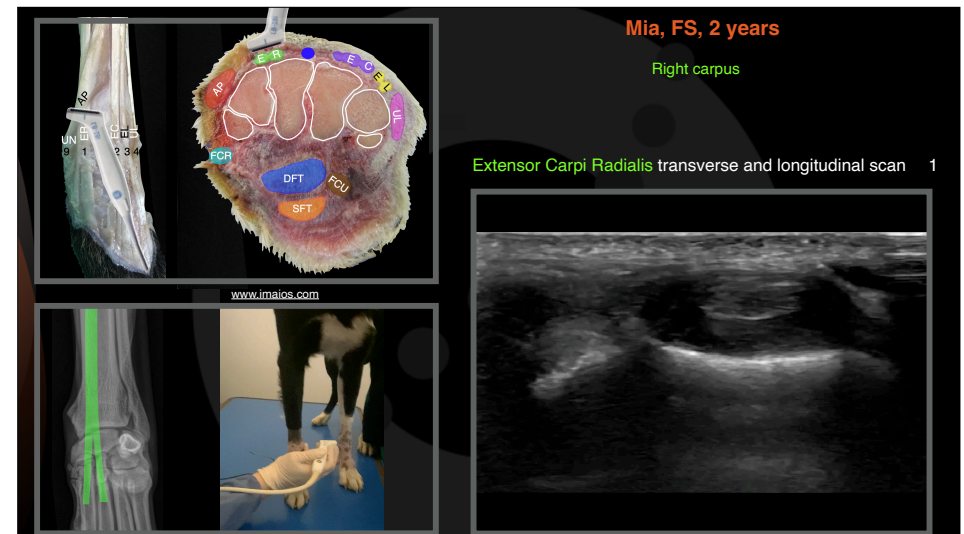
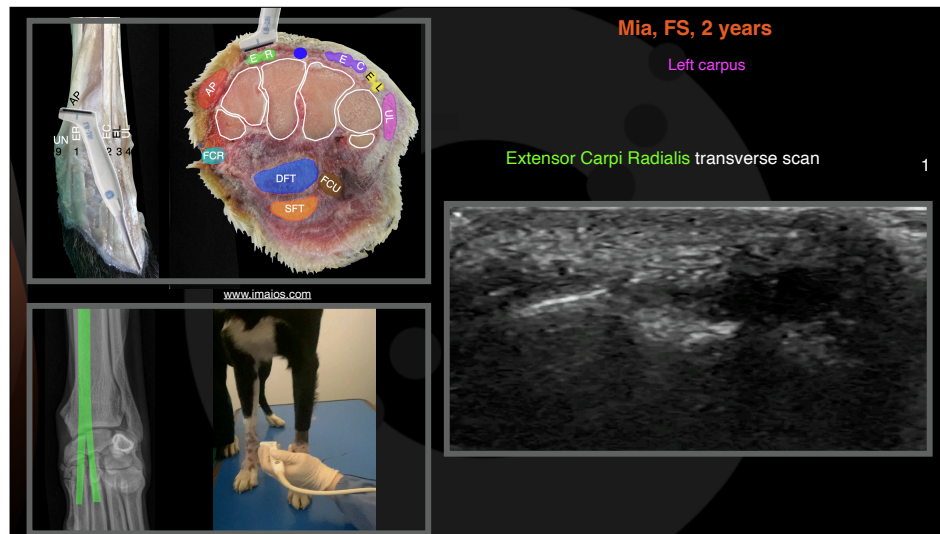
Yuuichi Yanagawa¹ · Hiromichi Ohsaka¹ · Kei Jitsuiki¹ · Toshihiko Yoshizawa¹ · Ikuto Takeuchi¹ · Kazuhiko Omori¹ · Yasumasa Oode¹ · Kouhei Ishikawa¹

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.



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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



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