



MEDICAL CASE STUDY

This case outlines the clinical presentation, diagnostic findings, and staged orthotic management of Bernie, a young Bernese Mountain Dog with early carpal joint degeneration that progressed from unilateral to bilateral forelimb involvement.

Bernie

- **Weight:** 44.5 kg
- **Age:** 1 year
- **Breed:** Bernese Mountain Dog
- **Presenting complaint:** Intermittent left forelimb lameness
- **Diagnosis:** Mild carpal joint degenerative change with joint effusion and synovial proliferation
- **Device:** WIMBA Carpus Orthosis GO
- **ROM Token:** 75–185° (controlled range of motion)
- **WIMBA Provider:** Valley Veterinary Hospital



CLINICAL PRESENTATION

Bernie presented with intermittent left forelimb lameness over several weeks, with pain noted on left carpal flexion. CT was performed to investigate the shoulders, elbows, and carpus/foot and identify the primary source of lameness. The most clinically relevant changes were localised to the left carpus.

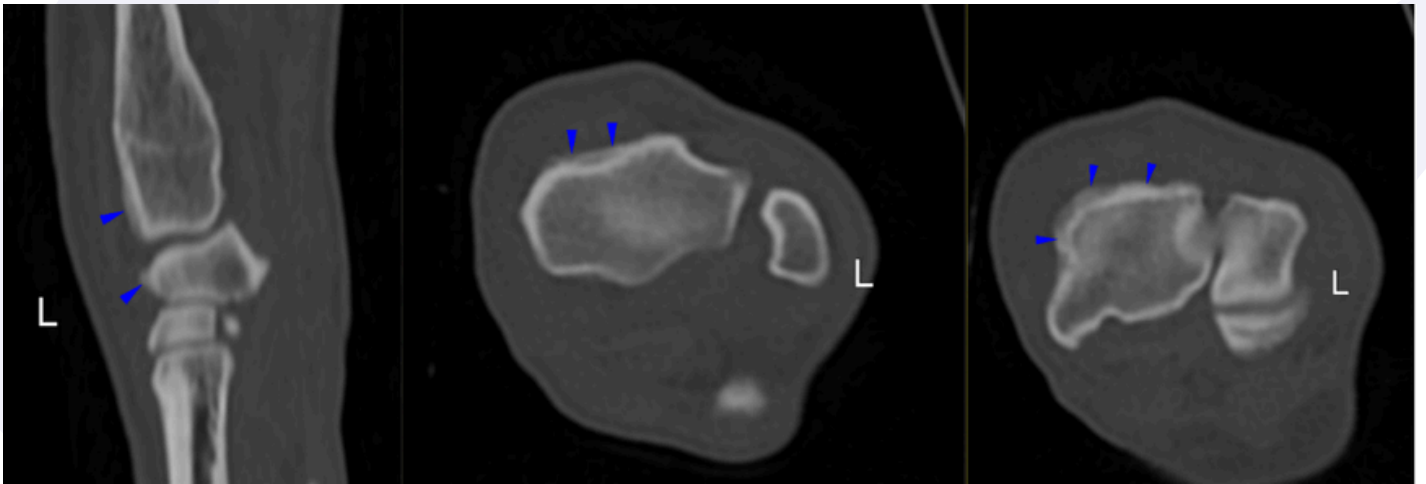
TREATMENT OBJECTIVE

The aim of management was to protect the affected carpal joint during activity by reducing excessive extension and limiting mechanical overload, while preserving functional mobility and day-to-day comfort in a young, active dog.

DIAGNOSTIC IMAGING

Initial CT (Date): 1 October 2024

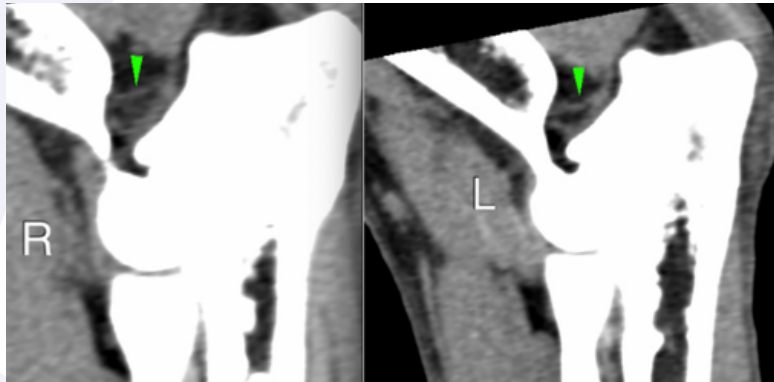
CT localised the most clinically relevant abnormalities to the left carpus. Mild osseous proliferation was identified along the dorsal and medial aspect of the distal radius and intermedioradial carpal bone. Subtle intracapsular soft tissue thickening was also noted.



Mild osseous proliferation at the distal radius/intermedioradial carpal region of the left carpus.

ADDITIONAL OBSERVATIONS

No clinically significant abnormalities were identified in the shoulders. Mild bilateral elbow changes were observed, including subjective medial coronoid process sclerosis and a small increase in joint fluid; however, these were not considered the primary source of pain.

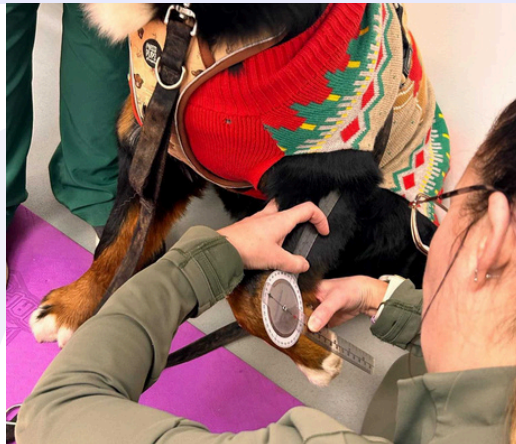


Subtle bilateral elbow joint fluid, not considered the primary pain source.

ORTHOTIC MANAGEMENT & FOLLOW-UP

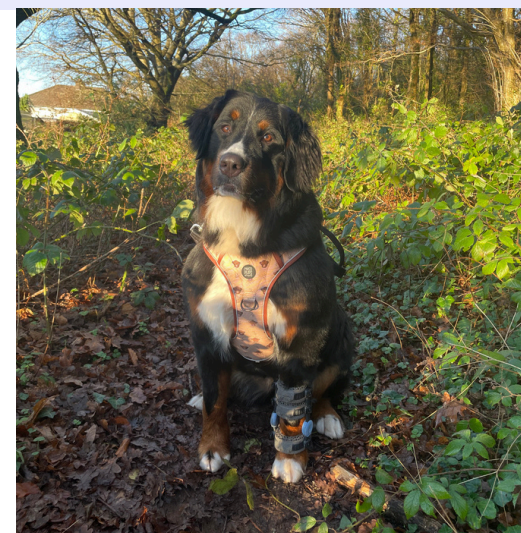
ORTHOTIC MANAGEMENT

A WIMBA Carpus Orthosis Go fitted with a 75–185° ROM token was introduced to reduce excessive carpal extension while preserving functional range of motion during activity. The orthosis was selected as a long-term management solution to improve comfort and support functional mobility.



EARLY RESPONSE

According to owner-reported follow-up, the orthosis helped Bernie tolerate longer walks and play with greater comfort and less concern about post-activity pain.



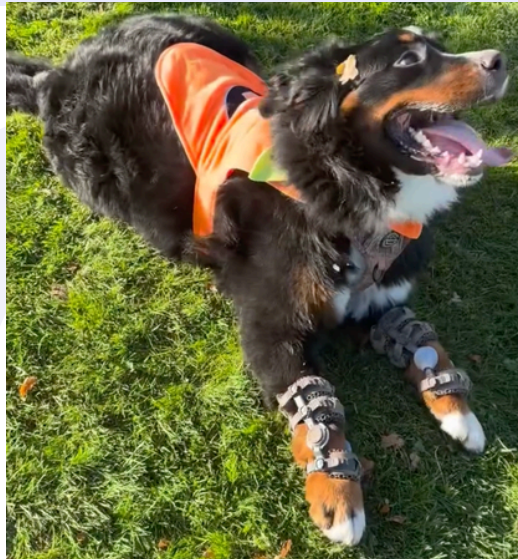
FOLLOW-UP OUTCOME

Initial orthotic support was associated with improved comfort, better functional use, and a more favourable clinical course in the initially affected limb over time.

CASE PROGRESSION & BILATERAL MANAGEMENT

INITIAL ORTHOTIC RESPONSE

Bernie was first fitted with a WIMBA Carpus Orthosis Go for the initially affected forelimb. Following orthotic intervention, the limb showed improved comfort, better functional use, and a more favourable clinical course over time. Improvements were observed primarily in clinical function and comfort, rather than complete resolution of structural disease.



CONTRALATERAL PROGRESSION

According to follow-up shared by the owner and clinical team, subsequent reassessment suggested more advanced progression in the previously unbraced limb compared to the limb already supported with the orthosis.



BILATERAL OUTCOME

A second WIMBA Carpus Orthosis Go was then introduced, allowing transition to bilateral orthotic management. With support provided to both front limbs, Bernie showed broader improvement in comfort, mobility, and day-to-day function, together with reduced reliance on pain medication.

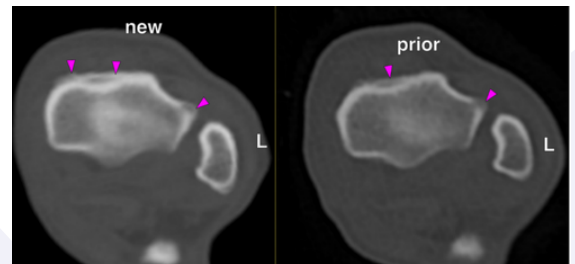
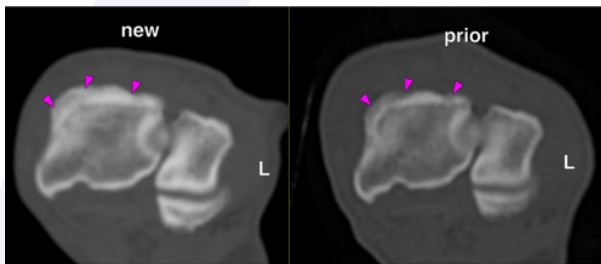
FOLLOW-UP CT & CLINICAL EVOLUTION

Follow-up CT (date): 3 March 2025

PRIMARY FINDINGS

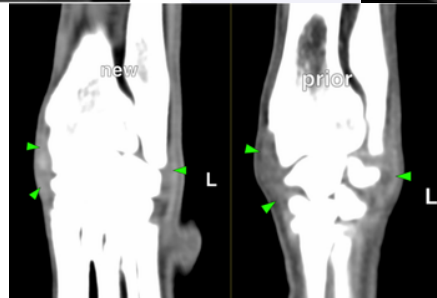
A follow-up CT study was performed 5 months after initial imaging to assess disease progression and compare findings to the prior examination.

In the left carpus, progressive degenerative osseous change remained evident; however, intracapsular soft tissue thickening and synovial change had improved compared with the previous study.



Follow-up CT of the left carpus demonstrating progressive osseous change with interval improvement in intracapsular soft tissue thickening.

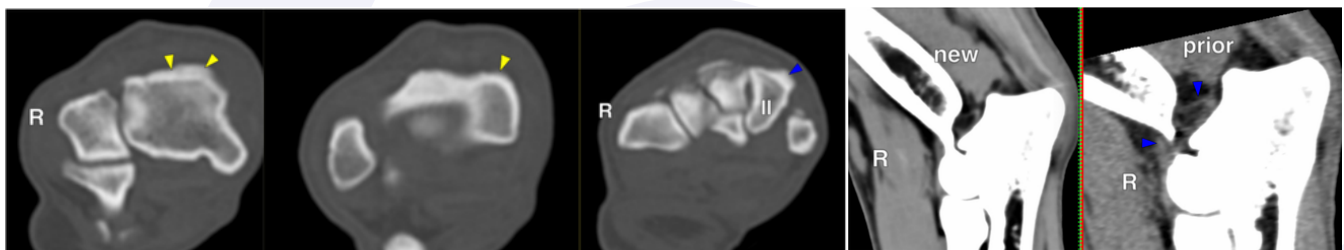
Follow-up vs prior CT at the level of the distal radius and ulna demonstrating progression of degenerative osseous change.



New mild degenerative change in the right carpus.

ADDITIONAL OBSERVATIONS

The contralateral right carpus demonstrated new mild degenerative and inflammatory change. The elbows remained largely unchanged, with no clinically significant progression, and previously noted intracapsular fluid had resolved. These findings suggest that while structural degeneration continued, inflammatory changes and key clinical symptom drivers were reduced.



Previously noted elbow joint fluid had resolved on follow-up imaging.

CLINICAL TAKEAWAY

Early orthotic support was associated with improved function and comfort in the initially affected limb. Follow-up imaging suggested reduction in inflammatory changes despite ongoing structural degeneration, while contralateral disease progression required transition to bilateral management.



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Nichi Cockburn RVN NCert (A&CC) CCRP AdvCertVPhys MIRVAP (VP) has been a Registered Veterinary Nurse for over 20 years, many of these years were in emergency and critical care. She refocused her training in rehabilitation and physiotherapy and gained her Certified Canine Rehabilitation Practitioner (CCRP) qualification, awarded by the University of Tennessee in 2015 and an Advanced Certificate in Veterinary Physiotherapy in 2017. Nichi leads the rehabilitation service at Valley Veterinary Hospital in Cardiff. She works closely with their multidisciplinary team, to develop an individual care package for pain management and rehabilitation. She has a particular passion in the management of osteoarthritis and is on the board of directors of the Veterinary Osteoarthritis Alliance (VOA).

