

CANNABINOIDS AND THEIR THERAPEUTIC POTENTIAL IN CANINE OSTEOARTHRITIS

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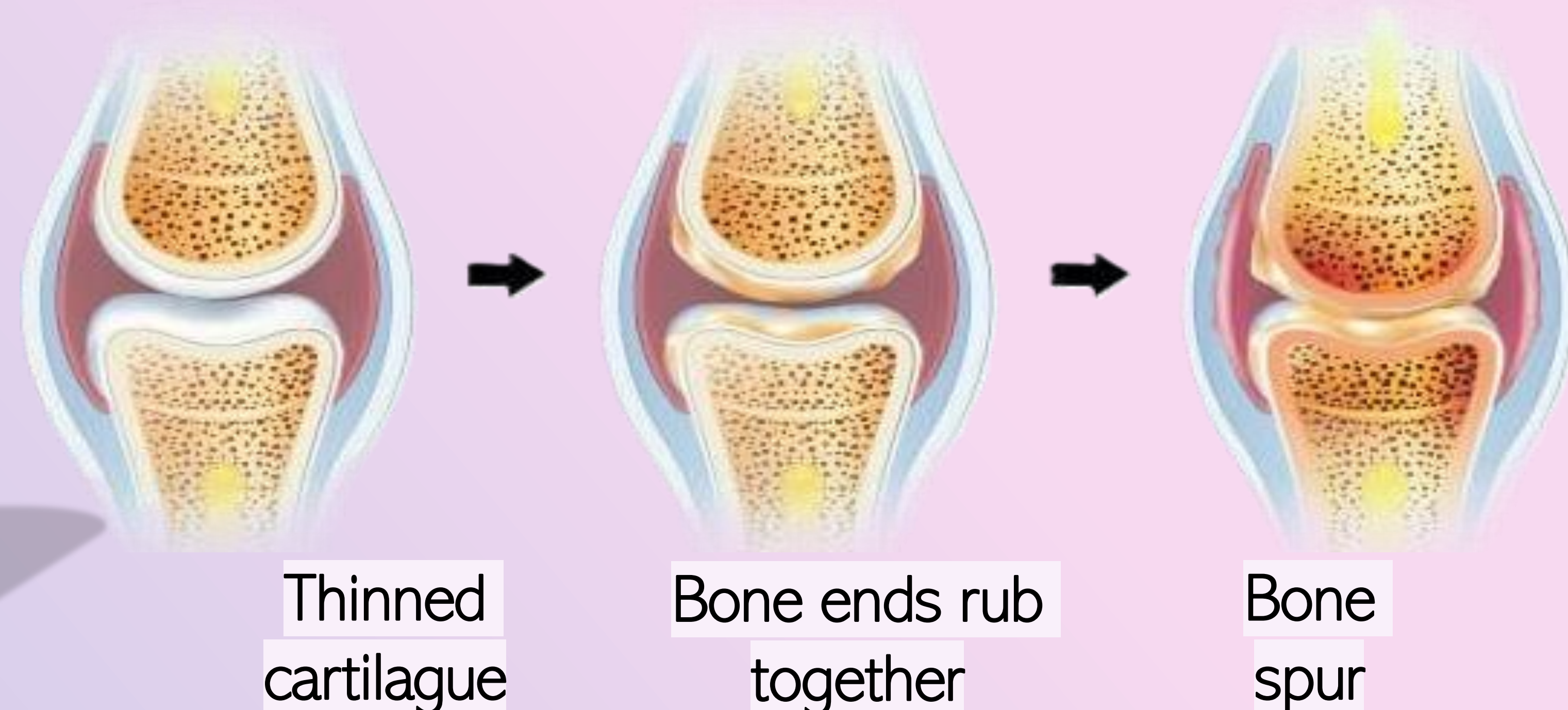
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1. OBJECTIVE

- To evaluate the effectiveness of cannabidiol (CBD) in the treatment of canine osteoarthritis.
- Review and analyze animal intervention studies to assess their effectiveness and safety, as an alternative to common drugs that usually produce adverse effects when administered chronically.

Osteoarthritis



2. EFFECTS OF CBD ON OA

Antinociceptive and anti-inflammatory effect

- ↑ Anandamide concentration (FAAH inhibition).
- Negative allosteric modulator of the CB1 receptor.
- Partial agonism of the CB2 receptor.
- Vanilloid receptor agonist (TRPV)

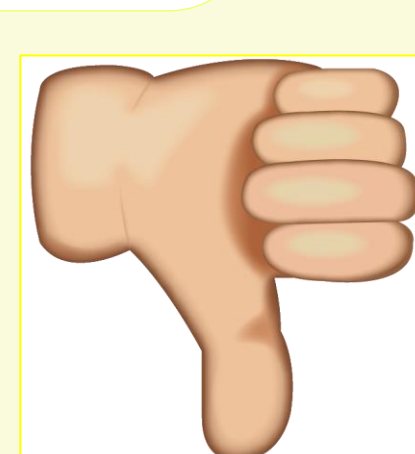
3. Materials and methods

Five different articles investigating the effects of CBD oral use in 117 dogs with confirmed osteoarthritis.



4. RESULTS AND DISCUSSION OF CLINICAL STUDIES

- An improvement in pain and quality of life in dogs is observed.
- High safety in the short term, few adverse effects.
- The dose of NSAID can be reduced by administering it together with CBD.
- The first-pass effect of CBD in the liver is reduced with oral transmucosal administration.



- Small sample size in each study (<50 dogs) and limited duration of the studies (4-12 weeks).
- 3/5 studies presents elevation of the alkaline phosphatase enzyme. Possible hepatotoxicity of CBD.
- Subjectivity of the evaluation of results by the owners.
- The certainty of the evidence is low.
- Heterogeneity in study designs and variability in CBD products used.

5. CONCLUSION

- ❖ Although CBD is considered a safe product and reduces short-term pain scores in studies, the evidence is too uncertain to conclude its efficacy and safety in dogs with osteoarthritis.
- ❖ More high-quality randomized controlled trials are required to assess the functions of CBD and long-term adverse effects.