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PLEURODESIS IN DOG AND CAT

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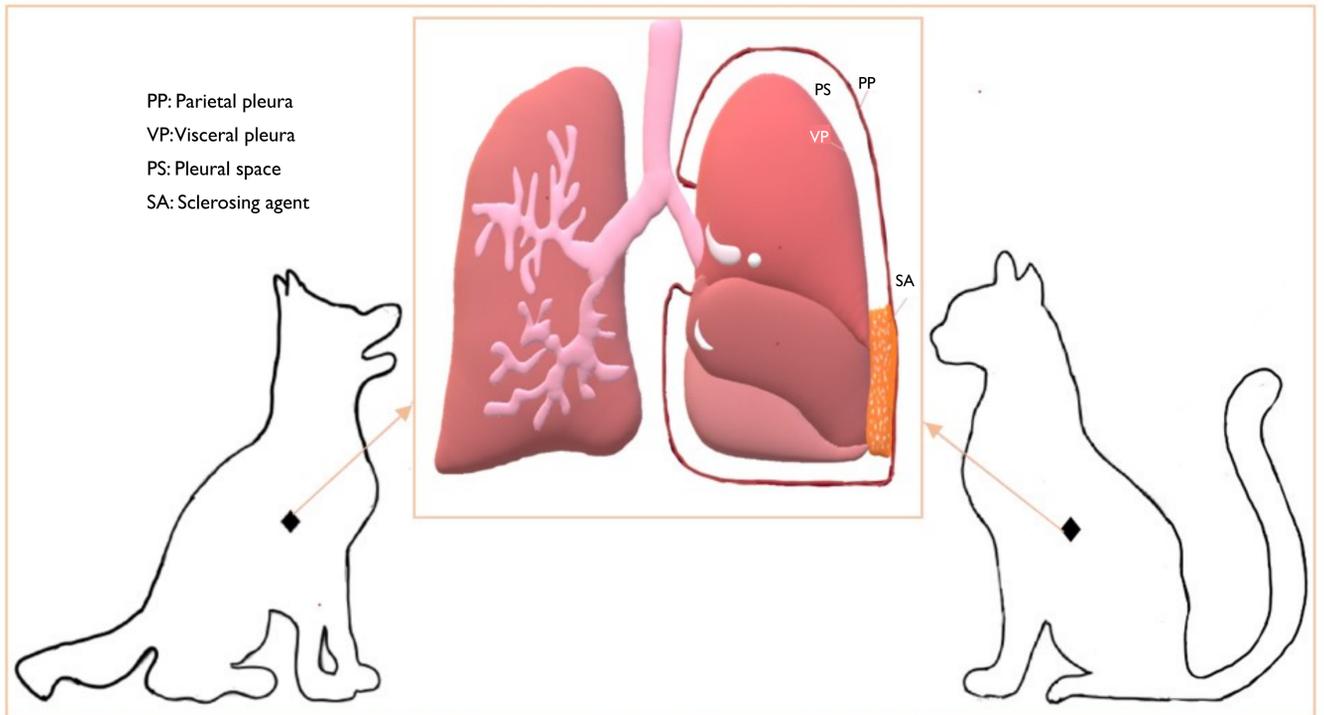
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ABSTRACT

Pleurodesis has been used for many years as a technique to achieve adhesions between parietal and visceral pleura, avoiding the accumulation of fluid or air in the pleural cavity, specifically in patients where no other alternatives are available. It is used as a palliative therapy and it has changed throughout years with the appearance of new sclerosing agents and methods of application.

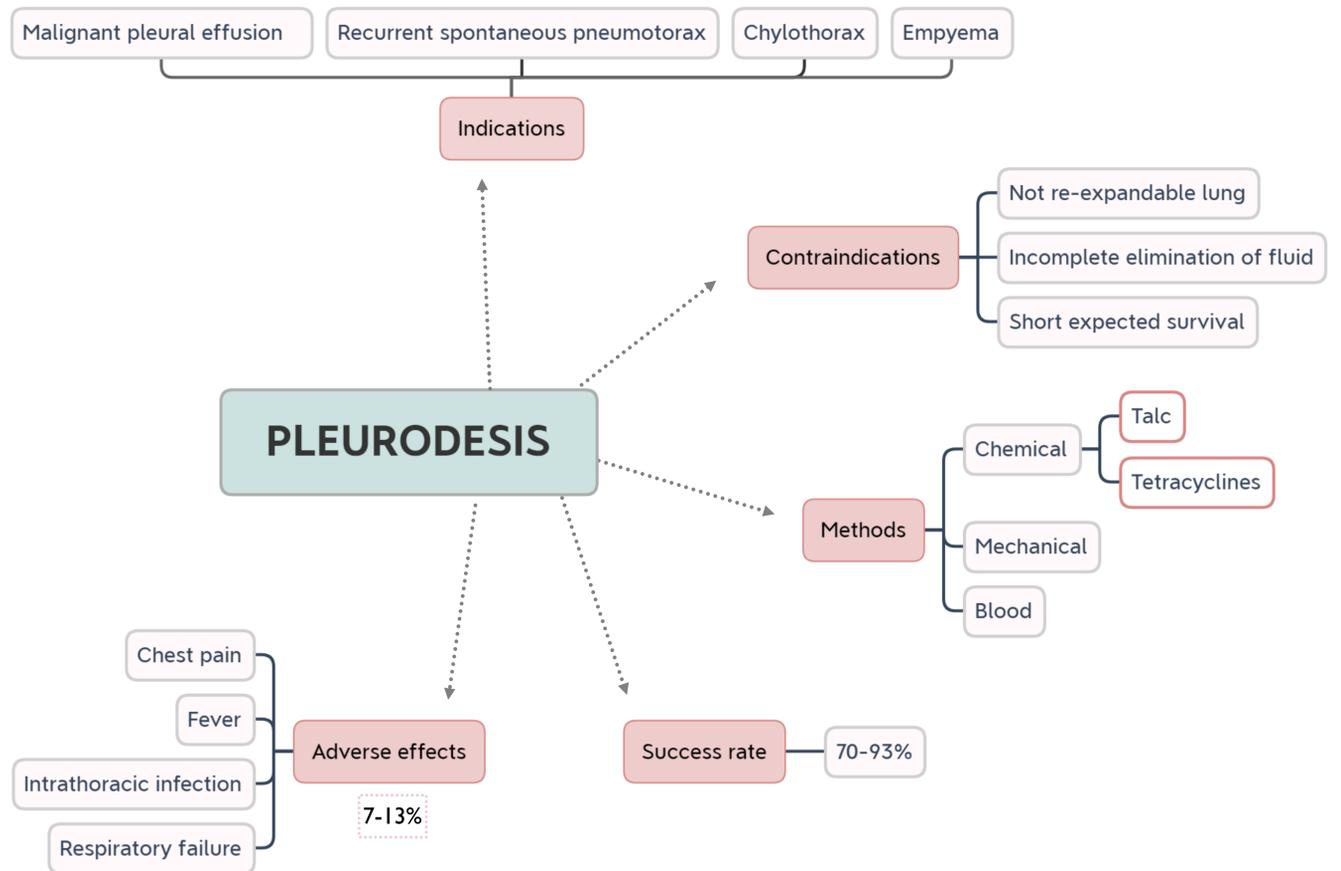
This technique has been widely applied in human and veterinary medicine, similarly in both sciences. Besides, indications for the procedure are clear not only for humans but also for animals, as well as their contraindications.

Nevertheless, and despite all the studies done until the present time, no clear agreement exists on which agent or technique is more successful.



OBJECTIVES

- Data recollection from previously done studies about different techniques and agents applied to achieve symphysis between both pleuras
- Evolution of pleurodesis in human and veterinary medicine, as well as significant similarities and differences, if present, between them
- Pathophysiological mechanism producing adhesions to reach pleurodesis
 - Analysis and comparison of existing agents
- Indications and contraindications assessing lung functionality parameters
- Comparison between success rates for most commonly used agents
- Evaluation of existing complications of each agent
- Establishment of most effective technique or agent, in humans, dogs and cats



CONCLUSIONS

There is high evidence that a better knowledge of pleurodesis mechanisms would contribute to this technique optimization. However, in spite of being considered as an effective, palliative treatment, this procedure generates pain as a consequence of the irritation produced in the pleural cavity, and it can only be applied in patients who cannot undergo surgery and with a relatively high life expectancy. Hence, searching new alternatives for a better optimization is necessary.

After this bibliographic review, we can observe that talc seems to be the most successful and safest sclerosant substance. Nevertheless, this is not conclusive, since results vary among authors and new agents highly successful appear periodically. That is why estimation of risks and improvement needs to be assessed. One of the final conclusions, is that pleurodesis in human medicine is applied more safely than in veterinary medicine, probably as a consequence of the larger number of studies done. What is more, this safety and efficacy is higher in dogs than in cats, although specific reason is not known exactly. Notwithstanding, not all authors agree when affirming pleurodesis is safe in dogs, as reported success is highly variable.

This technique's tendency is being as less invasive as possible, not reaching lower success, but the contrary. Thence, and awaiting further investigation, we can conclude talc is the most studied and applied agent, but we do not have evident enough results as to rule out all the other existing agents.