

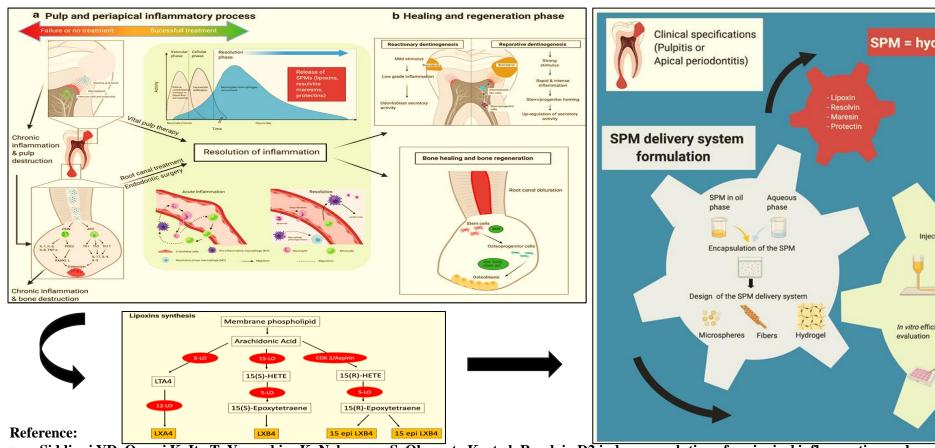




Clinical endodontic

## Novel Anti-inflammatory Strategy: Pro-resolving Mediators in Pulpal Healing

- Pulpitis can develop from dental caries, trauma, surgery, and periodontal diseases in key teeth. •
- The resolution of acute inflammation and promoting repair and regeneration is orchestrated by Specialized Pro-resolving lipid Mediators (SPMs) lipoxins, resolvins, protectins and maresins.
- SPMs limit neutrophil recruitment into inflamed tissues, increase monocyte and macrophage efferocytosis and bacterial phagocytosis, and inhibit inflammatory cytokine production without directly blocking it.
- SPMs are superior to typical endodontic procedures because they regenerate pulp instead of replacing it.
- Frankincense compounds are becoming more popular in folk medicine as an anti-inflammatory treatment.
- Boswellic acids, particularly 3-O-acetyl-11-keto-βBA (AKBA), are significant anti-inflammatory components of frankincense, targeting numerous proteins and pharmacological activities.



- perspectives SPM = hydrophobic compounds Vital pulp therapy In vitro and in vivo tests Pulp tissue engineering
- Siddiqui YD, Omori K, Ito T, Yamashiro K, Nakamura S, Okamoto K, et al. Resolvin D2 induces resolution of periapical inflammation and promotes healing of periapical lesions in rat periapical periodontitis. Front Immunol. 2019;10 February:307. https://doi.org/10.3389/fimmu.2019. 00307
  - Chiang N, Serhan CN. Structural elucidation and physiologic functions of specialized pro-resolving mediators and their receptors. Mol Aspects Med. 2017;58:114-29