PENGGUNAAN EKSTRAK DAUN UNGU (*Graptophyllum pictum L.Griff*) TERHADAP JUMLAH NEUTROFIL PADA GINGIVA TIKUS DENGAN PERIODONTITIS (Literature Review)

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Abstrak

Pendahuluan: Periodontitis termasuk salah satu penyakit periodontal yang sering terjadi di masyarakat dan periodontitis ini merupakan suatu penyakit inflamasi destruktif pada jaringan penyangga gigi. Penyebabnya adalah mikroorganisme plak. Proses inflamasi periodontal melibatkan sel T helper (Th2) memproduksi sitokin yang merangsang munculnya sel B yang berfungsi untuk mengaktivasi makrofag dan inflamasi. Untuk peran respon imun non spesifik dimulai dari presentasi polimorfonuklear neutrofil (PMN) dan Makrofag . *Antigen presenting cell* (APC) dan antigen sampai di kelenjar getah bening untuk mengaktivasir respon imun spesifik (Th1 dan Imunoglobulin M). Sel neutrofil termasuk salah satu sistem imunitas (*immune system*) dan sel neutrofil berperan sangat penting dalam pengaktifan antibodi (immunoglobulin), sistem komplemen, sistem pertahanan tubuh pejamu dan pertama kali muncul ketika ada invasi bakteri.
Tanaman daun ungu ini diharapkan dapat digunakan sebagai obat anti inflamasi alami pada periodontitis karena tanaman daun ungu ini mudah didapatkan, diaplikasikan, harganya yang terjangkau dan sering ditemukan sebagai tanaman liar, tanaman hias maupun tanaman pagar.
Pada tanaman daun ungu (*Graptophyllum pictum L.Griff*) memiliki kandungan fenolik seperti alkaloid, saponin, tanin dan flavonoid.
Metode: Artikel ini menggunakan metode tinjauan pustaka berdasarkan kriteria inklusi yaitu artikel penelitian asli, artikel publikasi tahun 2016-2021, dan dapat diakses *full text*. Database yang digunakan adalah *Google Scholar, CORE, Proquest, Pubmed dan Researchgate* dengan menggunakan kata kunci ekstrak *Graptophyllum pictum L.Griff, neutrophils cells*, Periodontitis.
Hasil: Hasil penelitian menunjukan bahwa kandungan pada tanaman seperti alkaloid, saponin, tannin dan flavonoid menunjukan adanya aktivitas anti mikrobia, anti inflamasi, anti alergi, anti tumor dan anti oksidan terhadap proses penyembuhan luka yang mampu melindungi tubuh manusia dari radikal bebas.
Simpulan: Penggunaan ekstrak daun ungu (*Graptophyllum pictum L.Griff*) dapat berpengaruh terhadap jumlah neutrofil pada gingiva tikus dengan periodontitis.

Kata kunci: Ekstrak daun ungu (*Graptophyllum pictum L.Griff*), Periodontitis, Sel neutrofil, Anti inflamasi

THE USE OF PURPLE LEAVE EXTRACT (Graptophyllum pictum L.Griff) ON THE NUMBER OF NEUTROPHIL IN RATTUS NORVEGICUS GINGIVA WITH PERIODONTITIS (Literature Review)

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Abstract

Introduction: Periodontitis is one of the most common periodontal diseases in the community and periodontitis is a destructive inflammatory disease of the tooth support tissue. The cause is plaque microorganisms. The periodontal inflammatory process involves helper T cells (Th2) producing cytokines that stimulate the appearance of B cells that serve to activate macrophages and inflammation. For the role of non-specific immune responses starting from the presentation of polymorphonuclear neutrophils (PMN) and macrophages. Antigen presenting cells (APCs) and antigens arrive at the lymph nodes to vaccinate specific immune responses (Th1 and Immunoglobulin M). Neutrophil cells including one of the immune system and neutrophil cells play a very important role in the activation of antibodies (immunoglobulins), complement systems, the body's defense system and first appear when there is an invasion of bacteria.
This purple leaf plant is expected to be used as a natural anti-inflammatory drugs in periodontitis because this purple leaf plant is easy to obtain, apply, affordable price and often found as a wild plant, ornamental plant and fence plant.
In the purple leaf plant (Graptophyllum pictum L.Griff) has phenolic content such as alkaloids, saponins, tannins and flavonoids
Method: This article uses a literature review method based on inclusion criteria i.e. original research articles, publication articles in 2016-2021, and can be accessed full text. The databases used are Google Scholar, CORE, Proquest, Pubmed and Researchgate using L.Griff's Graptophyllum pictum extract keywords, neutrophil cells, periodontitis.
Results: The results showed that the content in plants such as alkaloids, saponins, tannins and flavonoids showed the presence of anti-microbial, anti-inflammatory, anti-allergic, anti-tumor and anti-tumor activities against the wound healing process that is able to protect the human body from free radicals.
Conclusion: The use of purple leaf extract (Graptophyllum pictum L.Griff) may affect the number of neutrophils in the gingiva of mice with periodontitis.

Keywords: Purple leaf extract (Graptophyllum pictum L.Griff), Periodontitis, Neutrophil cells, Anti-inflammatory