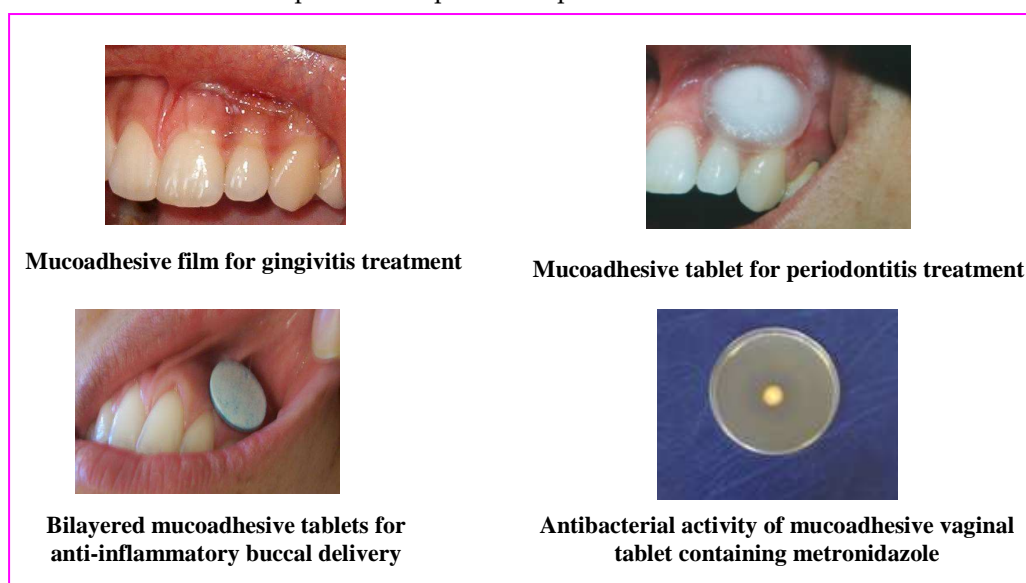


Mucoadhesive formulations for buccal and vaginal administration

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This project involves formulative studies of mucoadhesive preparations (gels, creams, emulgels, films, tablets) for buccal and vaginal administration of antiinflammatory and chemiotherapeutic drugs as an alternative to their systemic administration. These formulations, immobilized on the mucosa, allow local efficacious concentrations, through lower dosages and less administrations than conventional therapy and as a result, a side effect decrease and patient compliance improvement.



1. Description of the product

The project involves preformulative study about gels, tablets and bioadhesive films for buccal or vaginal application, in order to obtain a local drug release. These formulations are easy to apply, they don't need skilled workers and they're not invasive and not painful. In addition they offer lots of advantages as more local permanence of the drug, decrease of hepatic first pass, employing of low dosages, decrease of administrations and side effect, easiness of removal in case of necessity. These advantages take to an improvement of patient compliance. In this project we use bioadhesive polymers for the realisation of gel, creams, films and tablets (monolithic and multilayer) whose behaviour is valued trough in vitro studies, ex vivo and in vivo.

2. Innovative aspect of the product

The object of these researches can be applied in a dental, buccal and gynecologic sector (human and veterinary). In buccal sector, interest concerns such pathologies as dental pain, aphtha, gingivitis, parodontitis, ulceronecrotics gingivitis and in case of post-operation traumas. In gynecologic sector, interest concerns vaginitis and vaginosis. These formulations are innovative because they are very simple to apply and to remove and they permit a prolonged contact time between drug and mucosal tissue representing a valid alternative to oral therapy. In addition, this mucoadhesive formulation does not produce discomfort and can protect the damaged or inflamed mucosa in the case of oral ulcers, aphthous stomatitis or surgical operations. These interests can be transferred in a veterinary field, because advantages of these formulations make them particularly suitable for animal applications.

3. Main advantages of the offer

These formulations give lots of advantages: decrease of administration's frequency, drug dosage and side effects, easiness of application and removal, decreased hepatic first pass, no-invasivity and low costs.

In case of buccal formulations other advantages are:

- mechanic protection from wounds or inflammation
- direct application (by patient)

In case of vaginal formulations other advantages are:

- respect of vaginal physiological conditions
- flexibility and adaptability
- small dimensions
- absence of loss, with the possibility of administration in daytime.

4. Technology key words

Mucoadhesion, polymer, mucoadhesive formulation

5. Current Stage of Development

Work in progress – Tested in laboratory – Tested in field – available for demonstration

6. Intellectual Property Rights

The product of the research is not covered by patent

Technical and scientific publications

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