

CONFERENCE ABSTRACT

SCIENTIFIC MEETING OF VICTOR BABEȘ UNIVERSITY OF MEDICINE AND PHARMACY DOCTORAL SCHOOL AND ROMANIAN ACADEMY OF MEDICAL SCIENCES, DECEMBER 2016, TIMIȘOARA, ROMANIA

ASSESSMENT OF ANTITUMORAL AND ANTIMICROBIAL EFFECTS OF A MASLINIC ACID DERIVATIVE

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Key words: maslinic acid derivative, melanoma cell lines, antimicrobial activity

INTRODUCTION

Maslinic acid, a naturally occurring triterpene, has been reported to possess several therapeutic effects including antioxidant, anti-inflammatory and antiparasitic properties. Structural changes of the compound led to the development of new derivatives in order to expand the spectrum of activities.

OBJECTIVES AND BACKGROUND

The present study was purposed to assess the *in vitro* antitumoral and antibacterial effects of a maslinic acid derivative, namely benzyl (2 α , 3 β) 2,3-diacetoxy-olean-12-en-28-amide (EM2).

MATERIALS AND METHODS

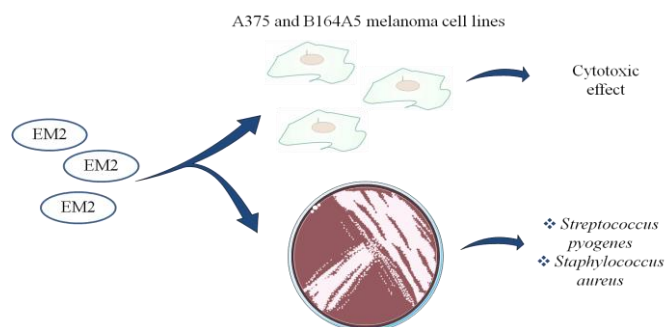
Four compound concentrations (12.5, 25, 50 and 100 μ M) were evaluated for their cytotoxic effect on A375 human melanoma and B164A5 murine melanoma cell lines using the MTT assay. Furthermore, EM2 was tested on ten bacterial strains by means of agar disk diffusion method with the assessment of the inhibition zone diameters at 24h period of time.

RESULTS

EM2 elicited a dose-dependent cytotoxic effect on both melanoma cell lines. Regarding the antibacterial activity, EM2 determined a significant growth inhibition on *Streptococcus pyogenes* (20 ± 0.26 mm) and *Staphylococcus aureus* (13 ± 0.19 mm).

CONCLUSIONS

The tested maslinic acid derivative is a promising antitumoral agent against skin cancer and antimicrobial agent against cocci bacteria.



Graphical abstract: EM2 *in vitro* effects