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AGGREGOMETRIC DETERMINATION OF ANTITUMOR AND
ANTIPLATELET POTENCY OF CARVACROL, FOR THE PREVENTION OF
CANCER AND THROMBOEMBOLIC DISEASES

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Introduction: Carvacrol is a basic ingredient of ethereal oil of *Origanum Vulgaris sbsp Hirtum*.

Purpose: The investigation of possible anticancer and antiplatelet actions of carvacrol (5-isopropyl-2-methylphenol).

Materials and Methods: i) anticancer action: in 28 healthy volunteers the cytotoxicity of NK cells was checked with the methods of cytotoxicity assay and flow cytometry with the use of carvacrol (10^{-3} M), ii) platelet aggregation (PA): in the isolated platelet rich plasma (PRP) of 28 healthy volunteers, trials of PA were performed with the stimulators ADP, PAF and arachidonic acid (ArA) in the presence and absence of carvacrol in concentrations 10^{-4} to 6.5×10^{-3} M, in aggregometer Ca-500 of Chronolog Co.

Results: i) the increase of cytotoxicity observed was 110% in average in the ratio 25:1, while the cytotoxicity in the ratios 12.5:1 and 50:1 remained stable, ii) the PA caused by ADP, PAF, and ArA was completely inhibited when carvacrol was added in concentrations such as 6.5×10^{-3} , 4.5×10^{-3} and 6.5×10^{-4} M respectively.

Conclusions: Carvacrol, a substance with antioxidant properties develops anticancer and antiplatelet actions. Therefore, with the addition of clinical trials, it could be useful in the therapy and prevention of cancer and thromboembolic diseases.