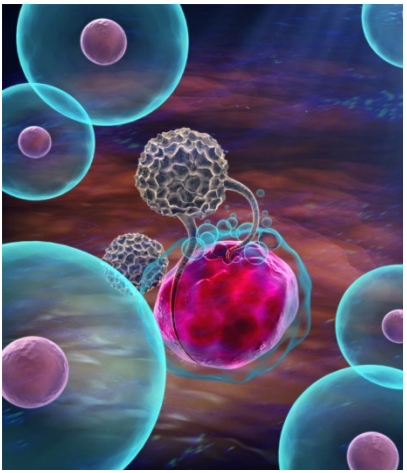
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Anti-hepatocarcinoma activity of TT-1, an analog of melittin, combined with interferon-α via promoting the interaction of NKG2D and MICA

Key words: TT-1; IFN-α; NK cells; Hepatocarcinoma; Immunotherapy

Research Summary

This article mainly focused on the anti-hepatocellular carcinoma effect of the combined therapy of TT-1 and IFN-α *in vitro and in vivo*, and the key effect and mechanisms were summarized as following:



- **TT-1 inhibited the proliferation of liver cancer cells**
- **TT-1 + IFN-α suppressed the tumor growth *in vivo* though stimulating NK cells**
- **TT-1 increased the expression of MICA and and inhibited sMICA secretion**
- **TT-1 + IFN-α enhanced the cytotoxicity of NK92 cells**



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Innovation points

A series of novelties about this research was shown as below:

- **This study was firstly to investigate the effect of TT-1 combined IFN-α**
- **TT-1 combined IFN-α suppressed the tumor growth *in vivo***
- **TT-1 not only increased the membrane MICA expression but also prevented membrane MICA from shedding as inhibitory soluble MICA**
- **The activation of NK cytotoxicity was the target in TT-1 + IFN-α- induced anti-tumor effect**

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