

论著

## IFN- $\gamma$ 联合TNF- $\alpha$ 活化小鼠腹腔巨噬细胞抗不同毒力株弓形虫的作用

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摘要

目的: 比较IFN- $\gamma$ 联合TNF- $\alpha$ 体外活化的小鼠腹腔巨噬细胞(M $\Phi$ )对强毒株RH株及弱毒株Fukaya株的抗虫作用。方法: 体外以IFN- $\gamma$ 与TNF- $\alpha$ 联合活化昆明系小鼠腹腔M $\Phi$ ,观察其对入侵的RH株及Fukaya株速殖子的抗虫作用,测定培养上清中NO的水平。结果: 在以IFN- $\gamma$ 100U+TNF- $\alpha$ 100U活化的M $\Phi$ 中,入侵24h后的RH株弓形虫速殖子被完全杀灭,而Fukaya株速殖子则缓慢增殖,且前者培养上清中NO水平显著高于后者。结论: IFN- $\gamma$ 活化的M $\Phi$ 对入侵的RH株和Fukaya株速殖子的抗虫作用存在差异,这可能与NO的水平有关。

关键词  [\$\gamma\$ -干扰素](#)  [\$\alpha\$ -肿瘤坏死因子](#) [弓形虫](#) [巨噬细胞](#) [一氧化氮](#)

分类号

## ANTI-TOXOPLASMA EFFECT OF ACTIVATED MOUSE MACROPHAGES INDUCED BY INTERFERON- $\gamma$ COMBINED WITH TNF- $\alpha$ \*

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### Abstract

AIM: To compare the inhibitory effect of the macrophages activated by IFN- $\gamma$  combined with TNF- $\alpha$  against RH strain and Fukaya strain. METHODS: The average parasite proliferation rates of the two strains within the cytokine-activated M $\Phi$ s were calculated at different times post-challenge, the nitric oxide (NO) levels in the medium supernatant were simultaneously determined. RESULTS: In the macrophages activated by 100 U each of IFN- $\gamma$  and TNF- $\alpha$ , the invaded tachyzoites of RH strain were completely killed, while the invaded tachyzoites of Fukaya strain remained slow proliferation with significantly lower levels of NO detected at 24 h post challenge. CONCLUSION: The difference in the anti-Toxoplasma effect of the activated macrophages against RH and Fukaya strains might be attributed to the different amount of NO produced by the macrophages.

**Key words** [Interferon- \$\gamma\$](#)  [tumor necrosis factor- \$\alpha\$](#)  [Toxoplasma gondii](#) [macrophage](#) [nitric oxide](#)

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