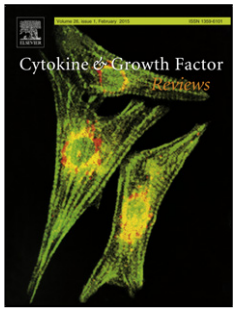

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Title: Monocyte and interferon based therapy for the treatment of ovarian cancer.

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Highlights

1. Introduction
2. Interferons and the treatment of cancer
3. Monocytes and Macrophages
4. Combination therapies and the future

Abstract:

Cytokines and cells of the innate immune system have been shown to be critical regulators in the elimination, equilibrium and escape of malignant cells. Despite *in vitro* and *in vivo* evidence, components of the innate immune system have shown limited efficacy in the treatment of ovarian cancer. Intraperitoneal immunotherapies are a promising field that has not yet been fully explored in ovarian cancer. Cytokine immunotherapy using interferon alpha (IFN-α) and interferon gamma (IFN-γ) has predominantly been used intraperitoneally in ovarian cancer, with promising results. Early studies also showed that autologous monocytes infused into the peritoneum have anti-tumor properties. Combination therapies have been shown to be more effective in treating cancer than mono-therapies. Based on these observations the combination of cell therapy with cytokine therapy may provide a unique strategy for the treatment of chemotherapy resistant solid cancers.

Key Words: Monocyte, Interferon Alpha, Interferon Gamma, Ovarian Cancer, immunotherapy.