

担癌宿主に於けるサイトカインネットワーク分子機構の解析

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Research Abstract

担癌宿主に於ける種々の癌病態を制御するサイトカインネットワーク分子機構の解析として以下のような成果があった。1)マウス大腸癌細胞株colon26のin vitroとin vivoにおけるサイトカイン産生を比較したところ大きく異なることが判明した。更に、悪疫質をおこす株では選択的にIL6をin vivoで発現し、おこさない株ではIL6の産生がみられずIL1 receptor antagonistの発現が観られた。2)担癌宿主では腫瘍由来TGFβによるCD4+Thのサイトカイン産生抑制に加えIL6がMoによるTNF産生を抑制して抗腫瘍生体防御能を低下させていることがわかった。3)CD4+のCTL誘導抑制性Tsの存在を明らかにし、CTL標的抗原を決定した。4)ヒト胸腔内Moが癌性胸水中リンパ球のIL2による活性化を増強するとともにIL12がCD8+Tリンパ球よりCTLを誘導する時もMoが関与することを明らかにした。5)gp130,NF-IL6ノックアウトマウスを作製した。6)癌病態調節サイトカインIL8,IL6の遺伝子発現調節機構を詳細に解明した。in vitroとin vivo(癌部位)におけるサイトカイン産生検索は、サイトカインネットワーク解析の仕事はin vivoを想定してのみなすことを示した。今後更に担癌にともないどのようなサイトカインが実際に発現されるのか、その産生細胞はどれか、実際にin vitroの観察から予想されているようなサイトカインネットワークが存在するのかわかる種々の癌細胞株を用いたマウスでのモデル実験を行なうとともにヒト癌においても検証する必要がある。サイトカイン-遺伝子発現調節機構解析、受容体シグナル伝達機構解析の基礎研究をサイトカイン遺伝子、受容体遺伝子、転写因子、シグナル伝達分子ノックアウトマウス作製の仕事と連結し、サイトカインネットワーク機構解析のためのよいモデル動物を提供できることを期待する。

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