**Liste-167**

# OPIOIDS INTERFERENCE ON CYTOTOXIC ACTIVITY OF IMMUNE SYSTEM

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Many researchers have reported that endogenous and exogenous opioids modify the immune function demonstrating the presence of specific receptors for opioids on monocytes on the complements and on the NK cells. It was proposed that psychoactive drug therapy may exert influences on the immune system through modifications in neuropeptide availability. It is known the importance of cellular cytotoxic against. tumors and the opioids interference on NK cell activity. So we had studied in humain morfine interference on immune system: difference among two different via of administration (sistemic - spinal) and which system modulates it.

**Materials and methods:**

**Study** 1 - 20 patients had histological confirmation of the cancer diagnosis. 5 patients did not receive antalgic therapy and were used as controls, 9 patients were treated with oral morphine (190 +/- 30 mg/day MSL Morphine Slow Released) and 6 with intratecal morphine (14 +/- 1.5 mg/day). 5 patients were observed during both oral and then intratecal morphine administration.
**Study 2** - This involved 20 patients with moderate low back pain NSAID's: 10 patients with piroxicam beta-cyclodextrine 20 mg/day and 10 with Ketorolac 20 mg/day.
**Study** 3 - Lymphocytic populations were evaluated by measuring plasmatic levels of lymphocytes LB, CD3, CD, and CD8 as well as the CD4/CD8 ratio. NK and LAK activity was studied with fluorescence methods.

**Results:**
Morphine decreased the cytotoxic activity that was present in previously. untreated neoplastic patients. NK activity underwent a significantreduction during transfer from oral to intrathecal morphine in the same patients. LAK cell activity in untreated patients was greater than that found in healthy subjects. The administration of morphine increased **this** cytotoxic activity to a greater extent with oral than with intrathecal administration. The i.v. administration of morphine increased PRL and .reduced NK activity within 30 min, whilst there were no effects on LAX cells, and bromocryptine failed to influence these effects. NSAID's: Only drugs of the piroxicam category produced interference on the overall trend of increment in NK activity, whilst Ketorolac did not appear to modify this significantly. Ketotolac produced a stimulant effect on LAK activity.

**Conclusions**:
Inducibility of LAK cells suggests that the immunodeficiency found in these patients does not affect the potential of lymphoid cells to acquire high cytotoxic activity. Any interference seems to be mediate by a 2° messenger-RNA and suggest to study which antalgic model is to use during therapy with LAK cells and IL2,

**References:**

- Sghweigerer L. Nature 1982; 296; 572-4.
- Provinciali M. intern J Neuroscience. 1991 1 59: 127-33.
- Shavit Y. Science 1984a; 223: 188-92.