

# 放射性磷(P-32)이 어린 생쥐의骨髓에 미치는影響에 關한 定量的 研究

信興實業專門大學 放射線科

朴 一 永

## Abstract

### Quantitative Studies on the Influence of Radiophosphorus (P-32) on Bone Marrow in Young Mice

Il Young Park

Dept. of Radiotechnology, Shin Heung Junior College

This study was performed to observe the effect of internal radioactive source on the bone marrow of mice at various stages of development (1 day, 1, 2, 3 and 4 weeks). Radiophosphorus (P-32) was injected to mice intraperitoneally at the dose rate of  $1.0 \mu\text{Ci/g}$  body weight. Mice were autopsied at weekly intervals upto six weeks and observed on pronormoblasts and normoblasts, granulocytes total and lymphocytes of bone marrow in 130 mice.

1. The erythroid cells show rapid decrease in their percentage due to their destruction.
2. The myeloid cells undergo accelerated maturation resulting in increased percentage of segmented form in bone marrow.
3. The percentage of lymphocytes is also decreased with some signs of their destruction.
4. The regeneration sets in and a normal picture is seen by the time the animals become adult.

여러가지 成長段階에 있는 생쥐들의 骨髓에 미치는 内部放射線 線源인 放射線 磷(P-32)의 效果를 研究하기 위하여 130 마리의 생쥐를 가지고 前正赤芽球와 正赤芽球, 線顆粒球 및 림프球的 定量的 變化를 調査한 結果, 다음과 같은 結論을 얻었다.

1. 赤血球細胞는 細胞의 破壞에 의해 빠른 減少를 보였다.
2. 骨髓性細胞는 骨髓内の 分節細胞의 增加로 成熟의

促進을 가져왔다.

3. 림프球는 放射線感受성이 높아 어린 생쥐에서 현저한 減少를 보였고, 破壞의 徵候를 나타냈다.
4. 再生이 일어났으며, 그 再生은 생쥐가 成熟하여 가는 時間에 따라 正常水準으로 回復되었다.

< 본 論文은 1982 年「信興實業專門大學 論文集」第 5 輯에 發表되었음 >.