

Expression of Cytokine Genes in Peripheral Blood Mononuclear Cells of Patients Undergoing Postmastectomy Radiotherapy

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Aim. Analysis of the expression of genes encoding IL-1a, IL-1b, IL-2, IL-5, IL-10, INFγ, ανδ TNΦα χητοκινες εν πε ριπηεραλ βλοοδ μονονυχλεαρ χελλσ (ΠΒΜΧ) οφ πατιεντσ υνδεργοι νγ ποστμαστεχτομψ ραδιοτηεραπιψ.

Methods. Freshly isolated PBMC collected from fifteen patients before, during, and at the end of irradiation treatment were studied by a reverse transcription-polymerase chain reaction (RT-PCR).

Results. IL-1a, IL-2, IL-5, and INFg gene transcripts were rarely or never detectable, whereas IL-10 expression was often observed in the pre-treatment samples. Most importantly, TNFα τρανσχιριπτσ ωερε δετεχτεδ εν οπερ 45% οφ τηε πατιεντσ αφτερ ιρραδιατιον τρεατμεντ. Εν 20% οφ τηε πατιεντσ χο-εξπρεσσιον οφ βοτη TNΦα ανδ ΙΑ-Ιβ γενεσ ωερε οβσ ερπεδ.

Conclusion. These data, obtained by taking advantage of a sensitive technique closely reflecting *in vivo* events, suggest that systemic monocyte activation could take place in therapeutically irradiated patients.

Keywords: *blood cells; breast neoplams; cytokines; radiotherapy*

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