

TITLE: COMPARATIVE GENOMIC HYBRIDIZATION (CGH) ANALYSIS OF NASOPHARYNGEAL CARCINOMAS (NPC): CORRELATIONS WITH EPSTEIN-BARR VIRUS (EBV).



RESEARCH CENTER: Human Genome Center, School of Medical Sciences, Universiti Sains Malaysia.

CURRENT STATUS OF PROJECT: Ongoing

RESEARCHERS:

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INTRODUCTION:

NPC occurs with a high incidence in Southeast Asia particularly in Cantonese population. In certain areas such as Southern China, Hong Kong, Singapore, Malaysia and Taiwan, the reported incidence rate ranges from 10-53 cases per 100,000 persons per year (L. Ho-Seng et al., 2005). There is a consistent association with the EBV (S. Rodriguez et al., 2005). EBV is detected by EBER-ISH technique (Fan et al., 2000). The losses and gains of the chromosomes from NPC tumor will be detected using CGH method. CGH is a technique that provides a global overview of chromosomal gain and losses throughout the whole genome of a tumor (M.M. Weiss et al., 1999).

OBJECTIVES

- 1) To define the pattern of genetic alterations of NPC using CGH technique.
- 2) To detect the presence of EBV in different histological type of NPC.
- 3) To find the correlation between histological type of NPC with CGH finding and the presence of EBV.

METHODOLOGY:

EBER-In Situ Hybridization

The EBV status of the NPC biopsy specimens is assessed by the EBV-ISH kit (Novocastra, Peterborough, UK).

CGH

CGH protocol will be performed according to Weiss et al.

OUTCOMES

Genetic alterations and correlation with EBV findings will be useful for the development of the diagnosis, prevention and treatment strategy of NPC.