

SURAPOL KHOIREANUDOM : DETECTION OF FRAGILE X CHROMOSOME IN MENTAL RETARDED MALES. THESIS ADVISOR : ASSO. PROF. PANNEE CHINORUK AND LT. COL. ARPORNPIROM KETUPANYA, M.D. 59 PP.

Detection of fragile X Chromosome were studied in 100 mental retarded males in Rajanukul hospital and also study in Rajanukul school. These patients have normal chromosome number (46, XY), their average ages are 15 years 4 monthes and average IQ are 46.99. The lymphocytes culture under the favouring condition for the appearance of the folate-sensitive fragile site fra (X) (q27) through inhibition of thymidylate biosynthesis by 5-fluoro-2'-deoxyuridine. It was found that none of the patients shows the fragile site on X chromosome. However, the fragile site on chromosome 12 at 12q23 was observed in one patient. This patient has a moderate mental retardation (IQ 46), normal looking face, prominent ears and speech defect.