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• 中文摘要

職業性暴露所引起的膀胱癌潛伏期最短爲 6 個月，但也有長至 48 年者，我國雖已在民國八十一年禁止聯苯胺類染料使用，但停止暴露後仍有機會發病，預估未來膀胱癌患者將陸續出現。對於人類癌腫瘤形成過程的研究，過去學者多專注於探討環境暴露的影響，但在相同環境暴露下，仍出現人類對於疾病有不同的感受性，這可能是由於人與人間遺傳的基因型態與酵素活性不同所致。本研究針對一家位於台灣北部且具有二十年以上歷史之染料製造廠，探討其員工受到職業性暴露後，其麩胺基硫轉移酵素基因型 GSTM1、 GSTT1、 GSTP1 基因型及尿中之氧化性傷害指標 8-hydroxy- deoxyguanosine（ 8-OH-dG）等與泌尿上皮細胞週期指標之間的相關性，期能找出與膀胱癌相關之危險因子。研究結果顯示因工作暴露於聯苯胺類染料下，對於泌尿細胞週期異常有較高的危險性，且若爲 GSTM1 與 GSTT1 無效基因型者泌尿細胞週期值異常的危險性高於一般人。對於有抽菸習慣者，同時也喝酒者泌尿細胞週期值異常率較高，若同時爲 GSTP1 低效率型、 GSTT1 及 GSTM1 無效型者也有較高的危險性。尿中的 8-OH-dG 濃度呈現男性高於女性、吸菸者高於非吸菸者。尿中的 8-OH-dG 值與泌尿細胞週期值異常並無顯著相關，檢測尿中的 8-OH-dG 濃度是否可以作爲泌尿細胞週期值異常的指標，須待以後進一步探討。

• 英文摘要

In the past study, the latent period of bladder cancer caused by occupational exposure is six months to fourty eight years. Benzidine- based dyes have been produced and used in Taiwan until 1992. It can be expected that new patients with urothelial cancer in the near future. About human cancerization process, academic world formerly just to probe into the environment factors. But under the same exposure, human shows differential susceptibility to diseases.The reason is the variations of genotype and enzyme activity between man to man which inherited.This study was designed to investigate the association of GSTT1, AGSTM1 and GSTP1 genotype with the urothelial cells cycle in dye workers, who were working in a dyestuff manufactoring factory which

established over twenty years and located at northern part of Taiwan. We hope to more define the risk factors about bladder cancer. The other part of this study is to measure urinary 8-hydroxy- deoxy- guanosine, which is a marker of oxidative damage. We hope to investigate the association between urinary 8-hydroxy- deoxyguanosine and urothelial cell damage in dyestuff manufacturing workers.As a result of our study exhibited those who carries genotype of GSTM1 null and GSTT1 null would influence the DNA ploidy of urothelial cells to become abnormal under the exposure of benzidine. In smoking group, who carries genotype of GSTM1 null, BGSTT1 null and slow GSTP1 would in higher risk of abnormal urothelial cells.Urinary 8-hydroxy-deoxyguanosine is not statiscally significant related with abnormal urothelial cells.