



<b>Title</b>	<b>Microsatellite instability, Epstein-Barr virus, mutation of type II transforming growth factor receptor and BAX in gastric carcinomas in Hong Kong Chinese</b>
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#### 8.4 Surgery improves survival of patients with recurrent nasopharyngeal cancer

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Nine hundred and three patients with nondisseminated NPC whose primary radical radiotherapy was administered between 1984 and 1989 inclusive were studied. One hundred and seventy-six had local failures comprising 9 persistences and 167 recurrences. In 10 patients the local failures were preceded or accompanied by (within 2 months) distant metastases. Most of the rest (123 of 166) were treated with either reirradiation to high dose (> 60 Gy) using mainly external photon beams ( $n = 103$ ) or nasopharyngectomy with/without radical neck dissection with/without postoperative radiotherapy ( $n = 20$ ). The remainder ( $n = 43$ ) received only palliative treatments because of poor general condition and/or patients' refusal of radical treatments. Nasopharyngectomy was performed via the transcervico-mandibulo-palatal approach or the maxillary swing approach. Radical neck dissection was only performed for the clinically evident nodal failures. With a median follow-up of 20 months (range 2.5-81 months) since the diagnosis of local failure, the actuarial 5-year overall survival, further relapse-free survival and free-from-local-tumor rates were 9.4, 11.5, and 18.7%, respectively, for the 123 patients treated by either high-dose reirradiation ( $n = 103$ ) or nasopharyngectomy ( $n = 20$ ). Reirradiation to high dose (> 60 Gy) mainly by external photon beams achieved a 5-year overall survival of 7.6% and 5-year local control of 15.2% with significant complications. Significant morbidity was also associated with the other frequent radiation complications, including xerostomia, trismus, and deafness. Nasopharyngectomy (+ neck dissection + postoperative radiotherapy) was associated with earlier recurrent T-stages (mostly rT1 and rT2) and better survival and local control than reirradiation. However, restricting the comparison to rT1 and rT2 still demonstrated the superior results in favor of nasopharyngectomy, which could not be explained by the selection of less advanced lesions or patients with better performance status for surgery.

#### 9.2 Microsatellite instability and mismatch repair gene mutations are common in young colorectal cancer patients in Hong Kong

#### 9.1 Microsatellite instability, Epstein-Barr virus, mutation of type II transforming growth factor receptor and BAX in gastric carcinomas in Hong Kong Chinese

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Microsatellite instability (MI), the phenotypic manifestation of mismatch repair failure, is found in a proportion of gastric carcinomas. Little is known of the links between MI and EBV-status and clinico-pathological elements. Examination of genes mutated through the MI mechanism could also be expected to reveal important information on the carcinogenic pathway. Seventy-nine gastric carcinomas (61 EBV-negative, 18 EBV-positive) from local Hong Kong Chinese population, an intermediate incidence area, were examined. Eight microsatellite loci, inclusive of the A10 tract of type II transforming growth factor receptor (T.BRII) were used to evaluate the MI status. MI in the BAX and insulin-like growth factor II receptor (IGFIIIR) genes were also examined. High level MI (>40% unstable loci) was detected in 10 cases (12.7%) and low level MI (1-40% unstable loci) in 3 (3.8%). High level MI was detected in 2 EBV-associated cases (11%) and the incidence was similar for the EBV-negative cases (13%). The high level MIs were significantly associated with intestinal type tumours ( $p=0.03$ ) and a more prominent lymphoid infiltrate ( $p=0.04$ ). Similar associations were noted in the EBV-positive carcinomas. The high level MIs were more commonly located in antrum whereas the EBV-associated carcinomas were mostly located in body. 13 cardia cases were negative for both high level MI and EBV. All patients aged below 55 were MI negative ( $p=0.049$ ). Of the high level MIs, 80% had mutation in TBR1I, 40% in BAX and 0% in IGFIIIR. 33% of low level MIs also had TBR1I mutation. These mutations were absent in the MI negative cases. Of 3 lymphoepithelioma-like carcinomas, two cases were EBV-positive and MI negative, one case was EBV-negative but with high level MI. In conclusion, high level MIs were present regardless of the EBV-status, and were found in a particular clinico-pathological subset of gastric carcinoma patient. Inactivation of important growth regulatory genes observed in these carcinomas confirms the importance of MI in carcinogenesis.

#### 9.3 Cytokines expression by tumour associated macrophages in non-small cell lung carcinomas—an in situ study