

## CHAPTER 6

### CONCLUSION

During the period of study (April 2001- January 2002), there were 71 cases presented with neck masses or nodes receiving FNA. Thirty-one cases were proven tuberculosis. Fifteen cases were conclusive by FNA cytology and did not need tuberculin test. The remaining (56 cases) were the studied population.

The studied population was classified into TB node group and non-TB node group. The former comprised male : female = 1:2.5, average age = 35.9 years, average node size = 2.41 cm (range 1-6 cm), common locations of nodes were right supraclavicular and left posterior triangle regions, and multiple nodes were twice more than single nodes. HIV seropositive patients accounted for 7%.

The Non-TB node patients were mostly reactive hyperplasia of lymph nodes. One case was Kikuchi lymphadenitis and another was lymphoma. As the group, male : female = 1:3, average age = 36.4 years, average node size = 1.54 cm (range 1-5 cm), common locations of nodes were both right and left posterior triangles of neck, and single nodes were 2.5 times multiple nodes. HIV seropositive patients were not present in this group.

The criteria of positive test for combined fine needle aspiration cytology (FNAC) and tuberculin test (TT) to make diagnosis of tuberculous lymphadenitis were either (1) cytologic granulomatous feature + TT positive reaction (cut-off value at  $\geq 15$  mm) or (2) cytologic non-granulomatous feature + TT strongly positive reaction (cut-off value at  $\geq 25$  mm). The combined test had sensitivity of 89.3%; specificity, 89.3%; positive predictive value, 89.3%; negative predictive value, 89.3%; likelihood ratio 8.3 and accuracy, 89.3%. The FNA cytology for granulomatous feature attained the sensitivity of 71.4%; specificity, 92.8%; positive predictive value, 90.9%; negative predictive value, 76.5%; likelihood ratio, 10 and accuracy, 82.1%. Therefore, combined test had the better sensitivity but poorer specificity comparing with FNA cytology for granulomatous feature (hallmark for TB).

The pitfalls of falsely positive by cytology were found in two cases. One showed the mimic of epithelioid cells and the other showed the mimic of caseous necrosis fragments.

The incremental cost-effectiveness ratio for every patient with inconclusive FNA cytology to have TT was 5,152 Baht in order to correct one extra case. The expense was much higher than to pay for biopsy of the node per case (=1,624 Baht) and that it was considered inefficient. However, the incremental cost-effectiveness ratio of the combined test could be reduced to 920 Baht if the patients showing cytologic features of epithelioid cell aggregates and necrotizing nonspecific inflammation performed TT. Each model could save four patients from cytology giving wrong diagnosis. Therefore, the combined test will be efficient for King Chulalongkorn Memorial Hospital setting when it used for specific cytologic features.