SUMMARY & CONCLUSIONS

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The present study was performed on 70 individuals categorized as follows:

I- Thirty patients suffering from bronchogenic carcinoma, classified according to:

A- Cell type:

- Twenty three cases NSCLC (32.8% of total) (76.66% of bronchogenic carcinoma), 11 of them were adenocarcinoma (15.75 of total) (36.6% of bronchogenic carcinoma) and 12 of them were squamous cell carcinoma (17.14% of total) (40% of bronchogenic carcinoma).

- Seven cases were SCLC (10% of total) (23.4% of bronchogenic carcinoma).

B- According to stage:

Twelve of them (17.14% of total) (40% of bronchogenic carcinoma) were stage II, 11 of them (15.71% of total) (36.6% of bronchogenic carcinoma) were stage III and 7 of them 10% of total) (23.4% of bronchogenic carcinoma) were stage IV.

Their ages ranged from 33 to 80 years (means 63) with a mean of 63 years.

II-Twenty patients (28.6%) suffering from benign chest disease 10 (14.28%) TB and 10 (14.28%) COPD.

III- Twenty apparently healthy individuals (28.6%)

Serum samples were obtained from patients before treatment in order to avoid any effect of therapy, and hemolytic sera were excluded to avoid the effect of hemolysis on serum TPA and CEA.

TPA levels were measured in the serum by enzyme linked immunoassay (ELISA). The cut off value was 0.9 ng/ml.

CEA levels were measured in the serum by IMx technique. The cut off value was 3.6 ng/ml.

- All the control subjects had normal TPA & CEA values.

- Concerning TPA in patients with benign chest disease only three cases from COPD group exceeded the cut off value while the remaining showed normal values below the cut off value.

- Concerning CEA in benign chest disease seven cases two from (TB) group and five from (COPD) group exceeded the cut off value of CEA.

- In bronchogenic carcinoma ten cases of thirty cases had serum TPA below the cut off value and fourteen cases of the thirty cases had serum CEA below the cut off value.

- When the patients were classified as regards cell type, we found that both markers were markedly increased in NSCLC specially squamous cell carcinoma than SCLC, and a significant difference exists between both cell types.

- Also when the patients were classified as regard the stages we found that the mean value of TPA was increased with the progression of the stage of the disease. Also this was found with CEA, but till the stage III, and its mean value decreased in stage IV than in the stage III.

- A significant positive correlation was found between TPA & CEA ($p < 0.001$, $r = 0.5270$).

- The TPA & CEA sensitivities were 66.6% & 53.3% respectively.

- The TPA & CEA specificities were 92.5% & 82.5% respectively.

- The combined TPA & CEA sensitivity was 73.3%.

- The TPA & CEA sensitivities in NSCLC were 73.9% & 56.5% respectively.

- The TPA & CEA sensitivities in adenocarcinoma were 54.5% & 36.5% respectively.

- The TPA & CEA sensitivities in squamous cell carcinoma were 91.6% & 75% respectively.

- The TPA & CEA sensitivity in SCLC was 42.86%.

- The TPA & CEA sensitivities in stage II were (50%, 25%), so the TPA measurement was more better than CEA in early case detection.

- The TPA & CEA sensitivities in stage III were (63.63%), while the TPA & CEA sensitivities were (100% & 85.7%) respectively.