The present study was undertaken to investigate: a. The association between hyperlipidaemia and stage of the disease in breast cancer b. The frequency of TNF alpha and CA 15.3 in breast cancer. c. The possible role of insulin and/or TNF alpha on any serum lipid abnormalities and cachexia observed in these patients.

Fasting blood samples were collected from 55 patients with histologically proven breast cancer who were attending the Al-Thawra University Hospital, Sanaa, Yemen. Another 55 fasting blood samples were also collected from age-sex matched control. All samples were analysed for triacylglycerol, total cholesterol, HDL-cholesterol, LDL-cholesterol, glucose, insulin, CA 15.3 and TNF alpha. Patients with known diabetes, thyroid disease, hyperlipidaemia or evidence of infected nerve were excluded as patients with weight loss.

The results showed that serum triacylglycerol levels increased significantly with increasing stage of the disease, but total cholesterol, HDL-cholesterol and LDL-cholesterol were found to decrease significantly with increasing stage of the disease.

Glucose and insulin levels showed a significantly low levels in early stages of the disease (III and IV) than those of the early stages (I and II). TNF alpha levels tended to increase significantly with increasing stage of the disease. It appeared to be a more sensitive indicator than CA 15.3 for disease progression in breast cancer.

The study of hormones antagonizing insulin action (corioid, glucagon, TSH and Growth Hormone) is recommended to assess the possible role of these hormones together with TNF alpha in the development of cachexia seen in cancer patients.

Mutations in K-ras and c-erbB2 expression in pancreatic cancer samples from archival tissue samples

Propose: K-ras mutations occur in 80% of pancreatic cancers. c-erbB2 expression vary between 19 to 82%. Both genes are prospective targets of anticancer therapies.

Materials and methods: Detection of K-ras codon 12 point mutations were determined by mutant enrichment PCR followed by restriction analysis, c-erbB2 expression was evaluated by immunohistochemistry in 32 paraffin-embedded tumour samples (28 exocrine pancreatic carcinomas, 3 neuroendocrine tumours and 1 carcinoma of Vater ampulla). Correlation with overall survival and other clinical characteristics was performed.

Results: In exocrine pancreatic cancer samples, K-ras mutations have been found in 56% (13/23) cases and c-erbB2 overexpression in 21.4% (6/28). In 5 cases of K-ras analysis no DNA amplification occurred. No K-ras mutation or c-erbB2 overexpression was found in 3 neuroendocrine tumours. c-erbB2 overexpression was strongly correlated with shortened overall survival (Breslow: p = 0.184). Other analyses did not reach statistical significance.

Conclusion: We conclude that overexpression of c-erbB2 gene, but not K-ras mutation, is strongly associated with shorter survival of exocrine pancreatic cancer patients.

Acknowledgement: Supported by grants IGA MZ CR 4953 - 3, LF1-206019-2