LIST OF PUBLICATION

Submission of Addendum-Cum-Erratum of thesis

Response to 1st Examiner’s Report:

1. As the candidate has attempted to study the carbohydrate metabolizing enzymes in cervical cancer, it is necessary to monitor blood glucose levels in these patients and should have specified the glycemic state (whether hyperglycemic or hypoglycemic condition is observed?) that is totally missing.

Blood glucose level of cervical cancer patients have been presented in tabular form (Table.1) in page 37. The study was made on patients who had a normal glycemic state because hyperglycemia or hypoglycemia may have some other implication on the basic status of carbohydrate metabolizing enzymes in cervical cancer patients.

2. Protein expression of any of the key enzymes of carbohydrate metabolizing enzymes could have been studied to further confirm the alterations in the activity of the enzymes along with biochemical assays.

Specific activity of enzyme is expressed on basis of protein estimation. Pyruvate kinase (PK) is one of the key enzymes in carbohydrate metabolism. Various isoforms of pyruvate kinase are expressed in different cell types. One of this isoforms Tu M2-PK was over expressed in tumor cells and released in body fluids. Among various markers, tumors are linked to the over expression of M2-pyruvate-kinase (M2-PK) 1. Babita et. al 2 showed that in squamous cell carcinoma of the cervix, plasma concentration of Tu M2-PK in plasma is a good marker to differentiate malignant lesions from non-malignant conditions. Kuemmel et. al 3 also suggested Tu M2-PK can be used as a marker to differentiate between malignant and pre-malignant lesions for patients with cervical cancer.


3. Page 35, the name of the enzyme should be lactate dehydrogenase and not lactic dehydrogenase.
The name of the enzyme (lactate dehydrogenase) has been corrected.

4. Statistical significance followed is $p < 0.001$ in all the cases but it is $p < 0.05$ in fig. 4, page 51- specific activity of aldolase. Why is it so?

Results were significant at $p < 0.05$ level. As per laws of probability it is only 0.05% chances that results were due to random sampling which means 99.95% chance is due to the cause-effect relation. This rule has also been followed for aldolase activity in cervical cancer patient.

5. In some places the same result is given in the form of table and graph. Must be either of one.

Results have been presented in tabular form, graph has been deleted.


Reference has been identified and corrected.

7. Check the axis mentioned in the figure legend in page 108, Y-axis temperature, it should be X-axis temperature.

The figure legend has been identified and corrected accordingly.

8. Page 84, fig 13, check for catalase spelling

Catalase spelling has been corrected.

9. There are lots of topological errors throughout the thesis, which should be carefully rectified. Some of them are listed below
a. “Comparative” is misspelled as “comperative” throughout, should be corrected
b. Page 76, 1st line, causative agent-check the spelling.
c. Page 98, down syndrome, check for spelling
d. Page 99, manifested, check for spelling

The topological errors [(a) to (d)] have been identified and corrected accordingly.
Response to 2nd Examiner's Report:

1. P. 23 - First two sentences are repetition of earlier paragraph.
   - The repetition has been identified and deleted accordingly.

2. P. 47 - Ref-85 should be Dawson and Goodfriend.
   - Reference has been corrected.

3. P. 47 - References 84(a) to 84(e) should have been serially numbered.
   - References 84(a) to (e) have been serially numbered.

4. P. 55 - Ref.93, (Dische, 1964) is not required.
   - Reference 93 has been identified and discarded accordingly.

5. P. 57 – Norina et, al not included in reference.
   - Norina et, al reference has been included as ref- 106.

6. P. 77 and P. 94 – Lipid peroxidation method and result could be taken in same chapter i.e. chapter IV.
   - Lipid peroxidation method and result have been included in chapter IV.

7. P. 100 and P. 102 – Two different references 246 and 280 have been cited for same statement.
   - The references have been identified and ref- 246 has been discarded.

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