**EVALUATION OF SOME SERUM BIOCHEMICAL PARAMETERS BETWEEN LACTATING AND NON LACTATING DAIRY COWS IN SELECTED DAIRY FARMS UNDER CHITTAGONG DISTRICT**



**A CLINICAL REPORT SUBMITTED BY:**

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**This Clinical report submitted as per approved style and content**

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*The Author*

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**LIST OF ABBREVIATIONS**

|  |  |
| --- | --- |
| **Abbreviations** | **Elaborations** |
| AI | Artificial Insemination. |
| ANOVA | Analysis of Variance |
| DI | Deciliter |
| HF | Holstein Friesian |
| NSAIDs | Non Steroidal Anti-inflammatory Drugs |
| PPM | Potassium per manganate |
| MG | Miligram |
| NL | Non Lactating |
| TP | Total protein |
| RPM | Rotation per minute |

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Evaluation of Some Serum Biochemical Parameters Between Lactating and Non Lactating Dairy Cows in Selected Dairy Farms under Chittagong District

**ABSTRACT**

Physiological status-related changes in serum biochemical values are known to occur in many species. Few published studies include comparative measurements of serum biochemical parameters in crossbred dairy lactating, dry and pregnant cows. The aim of our study was to determine and compare some serum biochemical parameters of lactating and non lactating dairy cattle in selected dairy farms of Chittagong district. Fifty cross breed clinically healthy lactating cows and fifty clinically healthy cross breed non lactating cows blood, total protein, albumin glucose, calcium and phosphorus of serum were determined by using biochemical analyzer. There were insignificant variations found in most biochemical parameters (p < 0.05) and albumin was only significant variation. But the values of glucose and phosphorus is within the reference range value and the value of total protein, albumin, calcium are not with in reference range. The results of the study showed that among serum biochemical parameters total protein level in non- lactating cow (82.32 ± 2.15gm/l) was higher than the value of lactating cow(81.28 ±2.41 gm./l). The serum albumin level in non-lactating cow(27.45± 5.06 gm. /l) was significantly higher than the albumin level in lactating cow(14.09± 2.05 gm. /l) .But glucose level in lactating cow (63.01± 6.67 mg/dl) was higher than glucose level in non- lactating cow(58.47 ±3.84mg/dl). The calcium level in lactating cow (63.02 ± 6.67mg/dl) was very higher than calcium level in non lactating cow (20.06± 2.51mg/dl). Calcium level in lactating cow was higher because of higher absorption of calcium from stomach and bone to blood level for production of milk. Another parameter phosphorus level in non- lactating cow( 7.26 ± .41mg/dl) was higher than in lactating cow(6.52 ± .308 mg/dl) It may be concluded that biochemical variation present between lactating cow and non lactating cow and it is very important for interpretation of laboratory data and also for physiological diagnosis.

**Key Words:** Cross bred cows, lactating cow, non lactating cow, serum biochemistry, reference value, Total protein, albumin, glucose, calcium, phosphorus.

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