

**Abstract**

The aim of this study was to compare phenotypic characteristics, blood biochemical parameters and some mitochondrial genomic regions of Iranian Balouchi and Jammazeh camel. Samples were taken from purebred camels from both Sistan and Baluchistan and Kerman provinces. Body measurements which recorded were the body length, leg distance, leg size, for limb distance, body height, womb circumference, hemp circumference and neck length. Blood samples were obtained from some of camels and plasma were separated for biochemical analysis. Plasma biochemical parameters including the cholesterol, bilirubin, albumin, globulin, total protein cortisol and thyroid hormones. After plasma separation, DNA has been extracted from the remained cells and utilized for mitochondrial genome analysis. Particular primers designed for COX3 gene and desired region amplified using thermal cycler device. Amplicons sent for sequencing and the sequence alignment have been done to compare similarities/differences between two breeds. Results of the current study revealed statistically significant phenotypic differences between two breeds. Moreover, blood chemical parameters suggest that Jammazeh breed have been revolted for fast and explosive reactions. Based on results of genetic analyses it could be employed that genetic diversity of Balouchi camel is more than Jammazeh breed which may be due to crossbreeding with other camel breeds.

**Keywords:** Balouchi breed, Body measurements, Jammazeh breed, Mitochondrion.



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Title:

**Comparing blood biochemical parameters, biometric characteristics and some regions of mitochondrial genome in Iranian meta-type and racing camels**

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