

## **Abstract:**

Electrocardiogram is the most common used clinical device for the diagnosis of electrical cardiac arrhythmias. Because of the importance of the cardiovascular system and given that the heart acts electronically as a single cell, the understanding of the electrical properties of the heart is valuable. The complete examination of the cardiovascular system should also include electrocardiography, because this technique is the most accurate method for determining dysrhythmias and conduction disorders. So far, many studies have been done on the normal parameters of the ECD in different breeds of goats, which indicate the importance of ECG in goats. The aim of this study was to find information on the rhythm and number of heart beats, the time and direction of ECG waves and the average of electric axis for the design of ECG pattern in the Baluchi goat. In the present study, 30 female goats were used at different ages and the normal ECG was described. Average heart rate, average electric axis, amplitude and time of different ECG waveforms, RR, QT, PR interval and QT interval corrected for 6 standard lead (I, II, III, aVR, aVL, aVF) and Base-apex calculated. The average heart rate in the Baluchi goat was  $(77.26 \pm 6.38 \text{ bpm})$ , average electric axis was  $(163.25 \pm 25.3)$ , the wavelength of (T, QRS, P) per second was respectively  $(0.038 \pm 0.17)$ ,  $0.057$  and  $(0.065 \pm 0.38)$ , the amplitude of P and T waves were  $(0.04 \pm 0.02)$  and  $(0.88.0 \pm 0.09) \text{ mV}$  respectively, and the RR, QT, PR interval was calculated  $(1.13 \pm 0.70)$ ,  $(0.27 \pm 1.17)$ ,  $(0.56 \pm 0.32)$  and  $(0.413 \pm 0.029)$  seconds, respectively. The results of this study showed that the electrocardiographic parameters in the Baluchi goat did not differ significantly from other goat breeds and are very similar to the ECG parameters in the Baluchi sheep. Base-apex is the best and most reliable lead for measuring the parameters of the heart in the Baluchi goat.

**Key words:** Heart, ECG, ECD, Baluchi goat, electric axis, beat.



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